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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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July, 1957 - September, 1958

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PREFACE

This final Index of NACA Technical Publications covers the unclassified NACA research reports issued in the period of July 1957 through September 1958. It is the seventh supplement to the basic 1915-1949 Index.

Entries included herein duplicate in part the information of the index cards furnished with the individual research reports. Recipients maintaining card files may wish to discard those index cards on hand for unclassified research reports issued during the July 1957-September 1958 period. Such cards were printed on salmon stock for easy identification in the discard process.

The research reports declassified during this period are also included. A list of these reports may be found on pages 311-314. Cards for this list may be discarded as entries for them are included in this Index. Current announcement of newly declassified materials is regularly made in NASA PUBLICATIONS ANNOUNCEMENTS.

The arrangement of this Index follows: (1) Outline of subject classification system, (2) chronological list of NACA reports under each subject classification, (3) list of reports declassified from July 1957 through September 1958, (4) alphabetical index to subject categories, and (5) author index.

Newly available research reports are currently announced in NASA PUBLICATIONS ANNOUNCEMENTS and are normally available for a period of 5 years after announcement. Most of the older research reports (those issued prior to July 1954) are thus available on a "loan only" basis, within the United States. Requests for NACA research reports should be forwarded to the address given below.

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(1)
AERODYNAMICS

(1)

AERODYNAMICS

DESIGN PROCEDURE AND LIMITED TEST RESULTS FOR A HIGH SOLIDITY, 12-INCH TRANSONIC IMPELLER WITH AXIAL DISCHARGE. Linwood C. Wright and Karl Kovach. April 1953. 37p. photos., diagrs., tab. (NACA RM E53B09)

COMPOSITION AND THERMODYNAMIC PROPERTIES OF AIR IN CHEMICAL EQUILIBRIUM. W. E. Moeckel and Kenneth C. Weston. April 1958. 39p. diagrs. (NACA TN 4265)

(1.1)
Fundamental Aerodynamics

EXPERIMENTAL INVESTIGATION OF DRAG OF AFTERBODIES WITH EXITING JET AT HIGH SUBSONIC MACH NUMBERS. Reino J. Salmi. November 1954. 26p. diagrs., photos. (NACA RM E54I13)

A PRELIMINARY INVESTIGATION OF STATIC-PRESSURE CHANGES ASSOCIATED WITH COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. August 1955. 12p. diagrs., photos. (NACA RM E55F07)

ON THE SPECTRUM OF NATURAL OSCILLATIONS OF TWO-DIMENSIONAL LAMINAR FLOWS. (Uber das Spektrum bei Eigenschwingungen ebener Laminarstromungen.) D. Grohne. December 1957. 34p. diagrs. (NACA TM 1417. Translation from Zeitschrift für angewandte Mathematik und Mechanik, v. 34, no. 8-9, August-September 1954, p. 344-357)

COMPILATION OF INFORMATION ON THE TRANSONIC ATTACHMENT OF FLOWS AT THE LEADING EDGES OF AIRFOILS. Walter F. Lindsey and Emma Jean Landrum. February 1958. 63p. diagrs., photos., tabs. (NACA TN 4204)

APPROXIMATIONS FOR THE THERMODYNAMIC AND TRANSPORT PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen. March 1958. 67p. diagrs., tabs. (NACA TN 4150)

AN APPROXIMATE ANALYTICAL METHOD FOR STUDYING ENTRY INTO PLANETARY ATMOSPHERES. Dean R. Chapman. May 1958. (i), 101p. diagrs., tab. (NACA TN 4276)

ON FULLY DEVELOPED CHANNEL FLOWS: SOME SOLUTIONS AND LIMITATIONS, AND EFFECTS OF COMPRESSIBILITY, VARIABLE PROPERTIES, AND BODY FORCES. Stephen H. Maslen. September 1958. 46p. diagrs., tabs. (NACA TN 4319)

(1.1.1)
INCOMPRESSIBLE FLOW

DETERMINATION OF VORTEX PATHS BY SERIES EXPANSION TECHNIQUE WITH APPLICATION TO CRUCIFORM WINGS. Alberta Y. Alksne. 1957. iii, 13p. diagrs., photos. (NACA Rept. 1311. Supersedes TN 3670)

INDUCED VELOCITIES NEAR A LIFTING ROTOR WITH NONUNIFORM DISK LOADING. Harry H. Heyson and S. Katzoff. 1957. iii, 88p. diagrs., photos., tab. (NACA Rept. 1319. Supersedes TN 3690; TN 3691)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. 1957. ii, 43p. diagrs., photo., tabs. (NACA Rept. 1327. Supersedes TN 3738)

THEORETICAL ANALYSIS OF TOTAL-PRESSURE LOSS AND AIRFLOW DISTRIBUTION FOR TUBULAR TURBOJET COMBUSTORS WITH CONSTANT ANNULUS AND LINER CROSS-SECTIONAL AREAS. Charles C. Graves and Jack S. Grobman. January 1957. 85p. diagrs., tab. (NACA RM E56I04)

INFLUENCE OF TURBULENCE ON TRANSFER OF HEAT FROM CYLINDERS. J. Kestin and P. F. Maeder, Brown University. October 1957. 78p. diagrs., tabs. (NACA TN 4018)

EFFECT OF FLOW INCIDENCE AND REYNOLDS NUMBER ON LOW-SPEED AERODYNAMIC CHARACTERISTICS OF SEVERAL NONCIRCULAR CYLINDERS WITH APPLICATIONS TO DIRECTIONAL STABILITY AND SPINNING. Edward C. Polhamus. January 1958. 54p. diagrs., photo., tab. (NACA TN 4176)

TURBULENT FLOW THROUGH POROUS RESISTANCES SLIGHTLY INCLINED TO THE FLOW DIRECTION. Albert L. Loeffler, Jr., and Morris Perlmutter. February 1958. 30p. diagrs., photos. (NACA TN 4221)

SKIN-FRICTION MEASUREMENTS IN INCOMPRESSIBLE FLOW. Donald W. Smith and John H. Walker. March 1958. 67p. diagrs., photo., tabs. (NACA TN 4231)

TURBULENT SHEARING STRESS IN THE BOUNDARY LAYER OF YAWED FLAT PLATES. Harry Ashkenas, Cornell University. April 1958. 58p. diagrs., photos., tab. (NACA TN 4140)

AN APPROXIMATE METHOD FOR DESIGN OR ANALYSIS OF TWO-DIMENSIONAL SUBSONIC-FLOW PASSAGES. E. Floyd Valentine. April 1958. 38p. diagrs., photo. (NACA TN 4241)

GENERAL SOLUTIONS FOR FLOW PAST SLENDER CAMBERED WINGS WITH SWEPT TRAILING EDGES AND CALCULATION OF ADDITIONAL LOADING DUE TO CONTROL SURFACES. E. B. Klunker and Keith C. Harder. May 1958. 55p. diagrs. (NACA TN 4242)

ELLIPTIC FUNCTIONS AND INTEGRALS WITH REAL MODULUS IN FLUID MECHANICS. (Les Fonctions et Integrales Elliptiques a Module Réel en Mécanique des Fluides). Robert Legendre. June 1958. 113p. diagrs. (NACA TM 1435. Translation of Office National d'Études et de Recherches Aéronautiques, Publication 71, 1954)

AERODYNAMIC RESEARCH ON FUSELAGES WITH RECTANGULAR CROSS SECTION. (Aerodynamische Untersuchungen an Rumpfen mit rechteckähnlichem Querschnitt.) K. Maruhn. July 1958. 37p. diagrs. (NACA TM 1414. Translation from Jahrbuch 1942 der deutschen Luftfahrtforschung, p. 263-279.)

BOUNDARY-LAYER STABILITY DIAGRAMS FOR ELECTRICALLY CONDUCTING FLUIDS IN THE PRESENCE OF A MAGNETIC FIELD. Vernon J. Rossow. August 1958. 32p. diagrs., tabs. (NACA TN 4282)

SOME NUMERICAL SOLUTIONS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL LAMINAR INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Peggy L. Yohner and Arthur G. Hansen. September 1958. 76p. diagrs., tabs. (NACA TN 4370)

ANALYSIS OF TURBULENT FLOW AND HEAT TRANSFER IN NONCIRCULAR PASSAGES. Robert G. Deissler and Maynard F. Taylor. September 1958. 35p. diagrs. (NACA TN 4384)

(1.1.2)
COMPRESSIBLE FLOW

INVESTIGATION OF PRESSURE RECOVERY OF A SINGLE-CONICAL-SHOCK NOSE INLET AT MACH NUMBER 5.4. Harry Bernstein and Rudolph C. Haefeli. April 1953. 22p. diagrs., photos. (NACA RM E53A12)

DESIGN PROCEDURE AND LIMITED TEST RESULTS FOR A HIGH SOLIDITY, 12-INCH TRANSONIC IMPELLER WITH AXIAL DISCHARGE. Linwood C. Wright and Karl Kovach. April 1953. 37p. photos., diagrs., tab. (NACA RM E53B09)

INVESTIGATION OF WING FLUTTER AT TRANSONIC SPEEDS FOR SIX SYSTEMATICALLY VARIED WING PLAN FORMS. George W. Jones, Jr., and Hugh C. DuBose. August 1953. 32p. diagrs., photos., 3 tabs. (NACA RM L53G10a)

PUMPING AND THRUST CHARACTERISTICS OF SEVERAL DIVERGENT COOLING-AIR EJECTORS AND COMPARISON OF PERFORMANCE WITH CONICAL AND CYLINDRICAL EJECTORS. S. C. Huntley and Herbert Yanowitz. January 1954. 42p. diagrs. (NACA RM E53J13)

GENERAL CONSIDERATIONS OF MACH NUMBER EFFECTS ON COMPRESSOR-BLADE DESIGN. John F. Klapproth. April 1954. 24p. diagrs., photos. (NACA RM E53L23a)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

EXPERIMENTAL DATA FOR FOUR FULL-SCALE CONICAL COOLING-AIR EJECTORS. C. C. Ciepluch and D. B. Fenn. November 1954. 41p. diagrs., photo., tab. (NACA RM E54F02)

INVESTIGATION OF COMPRESSIBLE FLOW MIXING LOSSES OBTAINED DOWNSTREAM OF A BLADE ROW. Warner L. Stewart. December 1954. 21p. diagrs. (NACA RM E54I20)

PRELIMINARY FLIGHT-DETERMINED PRESSURE DISTRIBUTIONS OVER THE WING OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT SUBSONIC AND TRANSONIC MACH NUMBERS. Gareth H. Jordan and C. Kenneth Hutchins, Jr. April 1955. 34p. diagrs., photos., tabs. (NACA RM H55A10)

PRELIMINARY ATTEMPTS AT ISOTHERMAL COMPRESSION OF A SUPERSONIC AIR STREAM. E. Perchonok and F. Wilcox. January 1956. 33p. diagrs., photos., tab. (NACA RM E55I29a)

A METHOD FOR THE DESIGN OF POROUS-WALL WIND TUNNELS. George M. Stokes. January 1956. 50p. diagrs., photo., tabs. (NACA RM L55J13a)

EXPERIMENTAL INVESTIGATION OF INTERFERENCE EFFECTS OF LATERAL-SUPPORT STRUTS ON AFTERBODY PRESSURES AT MACH 1.9. John L. Klann and Ronald G. Huff. May 1956. 13p. diagrs., tab. (NACA RM E56C16)

AVERAGE PROPERTIES OF COMPRESSIBLE LAMINAR BOUNDARY LAYER ON FLAT PLATE WITH UNSTEADY FLIGHT VELOCITY. Franklin K Moore and Simon Ostrach. 1957. iii, 12p. diagrs., tabs. (NACA Rept. 1325. Supersedes TN 3886)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. 1957. ii, 43p. diagrs., photo., tabs. (NACA Rept. 1327. Supersedes TN 3738)

THEORETICAL ANALYSIS OF TOTAL-PRESSURE LOSS AND AIRFLOW DISTRIBUTION FOR TUBULAR TURBOJET COMBUSTORS WITH CONSTANT ANNULUS AND LINER CROSS-SECTIONAL AREAS. Charles C. Graves and Jack S. Grobman. January 1957. 85p. diagrs., tab. (NACA RM E56I04)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. VIII - COMPARISON OF EXPERIMENTAL RESULTS FOR THREE IMPELLERS WITH SHROUD REDESIGNED BY RAPID APPROXIMATE METHOD. Walter M. Osborn, Kenneth J. Smith, and Joseph T. Hamrick. February 1957. 32p. diagrs., photos. (NACA RM E56L07)

REFLECTION AND REFRACTION OF ACOUSTIC WAVES BY A SHOCK WAVE. (Réflexion et refraction d'ondes acoustiques par une onde de choc.) J. Brillouin. July 1957. 42p. diagrs. (NACA TM 1409. Translation from Acustica, v. 5, no. 3, 1955, p. 149-163)

FLIGHT MEASUREMENTS OF BOUNDARY-LAYER TEMPERATURE PROFILES ON A BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.2 TO 3.5. Andrew G. Swanson, James J. Buglia, and Leo T. Chauvin. July 1957. 40p. diagrs., photos. (NACA TN 4061)

STABILITY OF LAMINAR BOUNDARY LAYER NEAR A STAGNATION POINT OVER AN IMPERMEABLE WALL AND A WALL COOLED BY NORMAL FLUID INJECTION. Morris Morduchow, Richard G. Grape, and Richard P. Shaw, Polytechnic Institute of Brooklyn. August 1957. 56p. diagrs., tabs. (NACA TN 4037)

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

FLOW-TURNING LOSSES ASSOCIATED WITH ZERO-DRAG EXTERNAL-COMPRESSION SUPERSONIC INLETS. Rudolph C. Meyer. October 1957. 18p. diagrs. (NACA TN 4096)

HEAT TRANSFER AND RECOVERY TEMPERATURES ON A SPHERE WITH LAMINAR, TRANSITIONAL, AND TURBULENT BOUNDARY LAYERS AT MACH NUMBERS OF 2.00 AND 4.15. Ivan E. Beckwith and James J. Gallagher. December 1957. 59p. diagrs., photos. (NACA TN 4125)

APPROXIMATE CALCULATION OF THE COMPRESSIBLE TURBULENT BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Eli Reshotko and Maurice Tucker. December 1957. 34p. diagrs. (NACA TN 4154)

DISCHARGE COEFFICIENTS FOR COMBUSTOR-LINER AIR-ENTRY HOLES. II - FLUSH RECTANGULAR HOLES, STEP LOUVERS, AND SCOOPS. Ralph T. Dittrich. April 1958. 56p. diagrs., tab. (NACA TN 3924)

AN EXPERIMENTAL STUDY OF THE TURBULENT BOUNDARY LAYER ON A SHOCK-TUBE WALL. Paul B. Gooderum. June 1958. 63p. diagrs., photos., tab. (NACA TN 4243)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF AN AERODYNAMICALLY CONTROLLED, VARIABLE-DISCHARGE CONVERGENT NOZZLE. Jack G. McArdle. July 1958. 33p. diagrs., photo., tabs. (NACA TN 4312)

COMPRESSIBLE LAMINAR FLOW AND HEAT TRANSFER ABOUT A ROTATING ISOTHERMAL DISK. Simon Ostrach and Philip R. Thornton. August 1958. 18p. diagrs., tab. (NACA TN 4320)

APPLICATION OF THE METHOD OF COORDINATE PERTURBATION TO UNSTEADY DUCT FLOW. Seymour C. Himmel, Case Institute of Technology. September 1958. (i), 152p. diagrs., tabs. (NACA TM 1439)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE BOUNDARY LAYER ON A YAWED CYLINDER WITH TRANSPIRATION COOLING. Ivan E. Beckwith. September 1958. 72p. diagrs., tabs. (NACA TN 4345)

TABLES AND GRAPHS OF NORMAL-SHOCK PARAMETERS AT HYPERSONIC MACH NUMBERS AND SELECTED ALTITUDES. Paul W. Huber. September 1958. 26p. diagrs., tabs. (NACA TN 4352)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF TEMPERATURE RECOVERY FACTORS FOR FULLY DEVELOPED FLOW OF AIR IN A TUBE. R. G. Deissler, W. F. Weiland, and W. H. Lowdermilk. September 1958. 35p. diagrs., tab. (NACA TN 4376)

PRELIMINARY HEAT-TRANSFER STUDIES ON TWO BODIES OF REVOLUTION AT ANGLE OF ATTACK AT A MACH NUMBER OF 3.12. Norman Sands and John R. Jack. September 1958. 29p. diagrs., photos., tabs. (NACA TN 4378)

(1.1.2.1) SUBSONIC FLOW

CALIBRATION OF THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT TRANSONIC TUNNEL AND PRELIMINARY EXPERIMENTAL INVESTIGATION OF BOUNDARY-REFLECTED DISTURBANCES. Virgil S. Ritchie and Albin O. Pearson. July 1952. 87p. diagrs., photos. (NACA RM L51K14)

INVESTIGATION OF CONICAL SUBSONIC DIFFUSERS FOR RAM-JET ENGINES. John M. Farley and Henry J. Welna. March 1954. 40p. diagrs., photos., tabs. (NACA RM E53L15)

PERFORMANCE CHARACTERISTICS OF SEVERAL SHORT ANNULAR DIFFUSERS FOR TURBOJET ENGINE AFTERBURNERS. William E. Mallett and James L. Harp, Jr. May 1954. 31p. diagrs., photo. (NACA RM E54B09)

LOW-VELOCITY TURNING AS A MEANS OF MINIMIZING BOUNDARY-LAYER ACCUMULATIONS RESULTING FROM SECONDARY FLOWS WITHIN TURBINE STATORS. Warner L. Stewart and Robert Y. Wong. May 1954. 18p. diagrs., photo. (NACA RM E54B16)

CONTRIBUTIONS ON THE MECHANICS OF BOUNDARY-LAYER TRANSITION. G. B. Schubauer and P. S. Klebanoff, National Bureau of Standards. 1956. ii, 11p. diagrs. (NACA Rept. 1289. Supersedes TN 3489)

VISUALIZATION OF ROTOR TIP SECONDARY FLOWS WITH BLADE TIP AIR DISCHARGE AND SUCTION IN A LOW-SPEED TURBINE. Milton G. Kofskey and Hubert W. Allen. August 1956. 28p. diagrs., photos. (NACA RM E56E16)

ON SLENDER-BODY THEORY AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. 1957. ii, 6p. (NACA Rept. 1315. Supersedes TN 3815)

(1) AERODYNAMICS

THEORETICAL ANALYSIS OF TOTAL-PRESSURE LOSS AND AIRFLOW DISTRIBUTION FOR TUBULAR TURBOJET COMBUSTORS WITH CONSTANT ANNULUS AND LINER CROSS-SECTIONAL AREAS. Charles C. Graves and Jack S. Grobman. January 1957. 85p. diagrs., tab. (NACA RM E56I04)

EFFECT OF NOSE SHAPE ON SUBSONIC AERODYNAMIC CHARACTERISTICS OF A BODY OF REVOLUTION HAVING A FINENESS RATIO OF 10.94. Edward C. Polhamus. August 1957. 29p. diagrs. (NACA RM L57F25)

AN INVESTIGATION OF FLOW IN CIRCULAR AND ANNULAR 90° BENDS WITH A TRANSITION IN CROSS SECTION. Stafford W. Wilbur. August 1957. 32p. diagrs., photos., tabs. (NACA TN 3995)

EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR A TURBULENT BOUNDARY LAYER IN SUBSONIC FLOW USING AIR AS A COOLANT. William E. Brunk. October 1957. 35p. diagrs. (NACA TN 4091)

MOMENTUM TRANSFER FOR FLOW OVER A FLAT PLATE WITH BLOWING. H. S. Mickley and R. S. Davis, Massachusetts Institute of Technology. November 1957. 64p. diagrs., tabs. (NACA TN 4017)

TURBULENCE MEASUREMENTS IN MULTIPLE INTERFERING AIR JETS. James C. Laurence and Jean M. Benninghoff. December 1957. 37p. diagrs., photos. (NACA TN 4029)

DISCHARGE COEFFICIENTS FOR COMBUSTOR-LINER AIR-ENTRY HOLES. II - FLUSH RECTANGULAR HOLES, STEP LOUVERS, AND SCOOPS. Ralph T. Dittrich. April 1958. 56p. diagrs., tab. (NACA TN 3924)

AN APPROXIMATE METHOD FOR DESIGN OR ANALYSIS OF TWO-DIMENSIONAL SUBSONIC-FLOW PASSAGES. E. Floyd Valentine. April 1958. 38p. diagrs., photo. (NACA TN 4241)

LOCAL ISOTROPY IN TURBULENT SHEAR FLOW. Stanley Corrsin, Johns Hopkins University. May 1958. 15p. diagr. (NACA RM 58B11)

SOME EFFECTS OF VANES AND OF TURBULENCE IN TWO-DIMENSIONAL WIDE-ANGLE SUBSONIC DIFFUSERS. Carl A. Moore, Jr., and Stephen J. Kline, Stanford University. June 1958. iii, 139p. diagrs., photos., tabs., film suppl. available on request. (NACA TN 4080)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF AERODYNAMIC FORCES AND MOMENTS ON LOW-ASPECT-RATIO WINGS UNDERGOING FLAPPING OSCILLATIONS. Donald S. Woolston, Sherman A. Clevenson, and Sumner A. Leadbetter. August 1958. 25p. diagrs., tab. (NACA TN 4302)

SECOND-ORDER SLENDER-BODY THEORY - AXISYMMETRIC FLOW. Milton D. Van Dyke. September 1958. (i), 46p. (NACA TN 4281)

EFFECT OF SOME EXTERNAL CROSSWISE STIFFENERS ON THE HEAT TRANSFER AND PRESSURE DISTRIBUTION ON A FLAT PLATE AT MACH NUMBERS OF 0.77, 1.39, AND 1.98. Howard S. Carter. September 1958. 21p. diagrs., photo., tab. (NACA TN 4333)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF TEMPERATURE RECOVERY FACTORS FOR FULLY DEVELOPED FLOW OF AIR IN A TUBE. R. G. Deissler, W. F. Weiland, and W. H. Lowdermilk. September 1958. 35p. diagrs., tab. (NACA TN 4376)

(1.1.2.2) MIXED FLOW

TWO-DIMENSIONAL CHORDWISE LOAD DISTRIBUTIONS AT TRANSONIC SPEEDS. Walter F. Lindsey and Richard S. Dick. February 1952. 41p. diagrs., photos. (NACA RM L51I07)

CALIBRATION OF THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT TRANSONIC TUNNEL AND PRELIMINARY EXPERIMENTAL INVESTIGATION OF BOUNDARY-REFLECTED DISTURBANCES. Virgil S. Ritchie and Albin O. Pearson. July 1952. 87p. diagrs., photos. (NACA RM L51K14)

AIR-FLOW AND POWER CHARACTERISTICS OF THE LANGLEY 16-FOOT TRANSONIC TUNNEL WITH SLOTTED TEST SECTION. Vernon G. Ward, Charles F. Whitcomb, and Merwin D. Pearson. July 1952. 50p. diagrs., photos. (NACA RM L52E01)

AN INVESTIGATION OF SOME FACTORS AFFECTING THE DRAG OF RELATIVELY LARGE NON-LIFTING BODIES OF REVOLUTION IN A SLOTTED TRANSONIC WIND TUNNEL. Robert E. Pendley and Carroll R. Bryan. January 1953. 52p. diagrs., photos., tabs. (NACA RM L52H22)

INVESTIGATION OF THE DRAG OF BLUNT-NOSED BODIES OF REVOLUTION IN FREE FLIGHT AT MACH NUMBERS FROM 0.6 TO 2.3. Harvey A. Wallskog and Roger G. Hart. June 1953. 28p. diagrs., photos., tab. (NACA RM L53D14a)

GENERAL CONSIDERATIONS OF MACH NUMBER EFFECTS ON COMPRESSOR-BLADE DESIGN. John F. Klapproth. April 1954. 24p. diagrs., photos. (NACA RM E53L23a)

WING PRESSURE DISTRIBUTIONS AT LOW LIFT FOR THE XF-92A DELTA-WING AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener. October 1954. 54p. diagrs., photos., tabs. (NACA RM H54H06)

FLOW AND FORCE CHARACTERISTICS OF 2-PERCENT-THICK AIRFOILS AT TRANSONIC SPEEDS. Walter F. Lindsey and Emma Jean Landrum. January 1955. 74p. diagrs., photos. (NACA RM L54I30)

SOME STUDIES OF AXISYMMETRIC FREE JETS EXHAUSTING FROM SONIC AND SUPERSONIC NOZZLES INTO STILL AIR AND INTO SUPERSONIC STREAMS. Eugene S. Love and Carl E. Grigsby. May 1955. ii, 178p. diagrs., photos., tabs. (NACA RM L54L31)

A STUDY OF LOCAL-PRESSURE FLUCTUATIONS RELATIVE TO STATIC-PRESSURE DISTRIBUTIONS OF TWO-DIMENSIONAL AIRFOILS AT HIGH SUBSONIC MACH NUMBERS. Charles F. Coe. December 1955. 66p. diagrs., photos. (NACA RM A55J11)

INFLUENCE OF THE BODY FLOW FIELD ON THE ZERO-LIFT WAVE DRAG OF WING-BODY COMBINATIONS MODIFIED IN ACCORDANCE WITH THE TRANSONIC AREA RULE. William A. Page. Februarv 1956. 26p. diagrs. (NACA RM A55K10)

INVESTIGATION OF UNSTEADY FLOW PAST FOUR NACA 6-PERCENT-THICK AIRFOIL SECTIONS. Charles L. Ladson and Walter F. Lindsey. July 1956. 17p. diagrs. (NACA RM L56E14)

ON SLENDER-BODY THEORY AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. 1957. ii, 6p. (NACA Rept. 1315. Supersedes TN 3815)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. 1957. iii, 29p. diagrs. (NACA Rept. 1318. Supersedes TN 3717)

THEORETICAL ANALYSIS OF TOTAL-PRESSURE LOSS AND AIRFLOW DISTRIBUTION FOR TUBULAR TURBOJET COMBUSTORS WITH CONSTANT ANNULUS AND LINER CROSS-SECTIONAL AREAS. Charles C. Graves and Jack S. Grobman. January 1957. 85p. diagrs., tab. (NACA RM E56I04)

A REEXAMINATION OF THE USE OF SIMPLE CONCEPTS FOR PREDICTING THE SHAPE AND LOCATION OF DETACHED SHOCK WAVES. Eugene S. Love. December 1957. 53p. diagrs. (NACA TN 4170)

THEORETICAL PRESSURE DISTRIBUTIONS FOR SEVERAL RELATED NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter, Alberta Y. Alksne, and B. Jeanne Hyett. January 1958. (i), 52p. diagrs., tab. (NACA TN 4148)

COMPILATION OF INFORMATION ON THE TRANSONIC ATTACHMENT OF FLOWS AT THE LEADING EDGES OF AIRFOILS. Walter F. Lindsey and Emma Jean Landrum. February 1958. 63p. diagrs., photos., tabs. (NACA TN 4204)

THE INTERACTION OF A REFLECTED SHOCK WAVE WITH THE BOUNDARY LAYER IN A SHOCK TUBE. Herman Mark, Cornell University. March 1958. ii, 128p. diagrs., photos., tabs. (NACA TM 1418)

EXPERIMENTAL STUDY OF THE EQUIVALENCE OF TRANSONIC FLOW ABOUT SLENDER CONE-CYLINDERS OF CIRCULAR AND ELLIPTIC CROSS SECTION. William A. Page. April 1958. 45p. diagrs., photos., tab. (NACA TN 4233)

MEASUREMENTS OF THE EFFECTS OF WALL OUTFLOW AND POROSITY ON WAVE ATTENUATION IN A TRANSONIC WIND TUNNEL WITH PERFORATED WALLS. Joseph M. Spiegel, Phillips J. Tunnell, and Warren S. Wilson. August 1958. 27p. diagrs. (NACA TN 4360)

THEORY AND EXPERIMENTS ON SUPERSONIC AIR-TO-AIR EJECTORS. (Theorie et expérimentation des ejecteurs supersoniques air-air.) J. Fabri and J. Paulon. September 1958. 30p. diagrs. (NACA TM 1410. Translation of Office National d'Etudes et de Recherches Aeronautiques. Note Technique no. 36, 1956)

(1.1.2.3) SUPERSONIC FLOW

SUPERSONIC-TUNNEL TESTS OF TWO SUPERSONIC AIRPLANE MODEL CONFIGURATIONS. Macon C. Ellis, Jr., Lowell E. Hasel, and Carl E. Grigsby. December 31, 1947. 49p. diagrs., photos., tab. (NACA RM L7J15)

EXPERIMENTAL PRESSURE DISTRIBUTION ON AN ASYMMETRICAL NONCONICAL BODY AT MACH NUMBER 1.90. DeMarquis D. Wyatt. February 24, 1949. 58p. diagrs., photos., tabs. (NACA RM E9B03)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.59. Morton Cooper and M. Leroy Spearman. May 23, 1950. 52p. diagrs., photos., tabs. (NACA RM L50C24)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTION AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.40. Norman F. Smith, Julian H. Kainer, and Robert A. Webster. April 20, 1951. 48p. diagrs., photos., tabs. (NACA RM L51C06)

DESIGN AND PERFORMANCE OF AN EXPERIMENTAL AXIAL-DISCHARGE MIXED-FLOW COMPRESSOR. III - OVER-ALL PERFORMANCE OF IMPELLER AND SUPERSONIC-DIFFUSER COMBINATION. Ward W. Wilcox and William H. Robbins. April 30, 1951. 26p. diagrs., photo. (NACA RM E51A02)

INVESTIGATION OF OFF-DESIGN PERFORMANCE OF SHOCK-IN-ROTOR TYPE SUPERSONIC BLADING. Robert C. Graham, John F. Klapproth, and Frank J. Barina. May 7, 1951. 25p. diagrs., photos. (NACA RM E51C22)

EXPERIMENTAL INVESTIGATION OF A 16-INCH IMPULSE-TYPE SUPERSONIC-COMPRESSOR ROTOR. Guy N. Ullman, Melvin J. Hartmann, and Edward R. Tysl. October 1951. 29p. diagrs., photos. (NACA RM E51G19)

(1) AERODYNAMICS

INVESTIGATION OF A 24-INCH SHOCK-IN-ROTOR TYPE SUPERSONIC COMPRESSOR DESIGNED FOR SIMPLE RADIAL EQUILIBRIUM BEHIND NORMAL SHOCK. Harold Lown and Melvin J. Hartmann. December 1951. 25p. diagrs., photo. (NACA RM E51H08)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. ESTIMATED DOWNWASH ANGLES DERIVED FROM PRESSURE MEASUREMENTS ON THE TAIL AT MACH NUMBERS OF 1.40 AND 1.59. Frederick C. Grant and John P. Gapcynski. March 1952. 27p. diagrs., photos., tabs. (NACA RM L51L17)

AN INVESTIGATION AT MACH NUMBERS OF 1.62 AND 1.93 OF THE LIFT EFFECTIVENESS AND INTEGRATED DOWNWASH CHARACTERISTICS OF SEVERAL IN-LINE MISSILE CONFIGURATIONS HAVING EQUAL-SPAN WINGS AND TAILS. Carl E. Grigsby. April 1952. 75p. diagrs., tabs. (NACA RM L52A02)

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 TO 15×10^6. II - AERODYNAMIC LOAD DISTRIBUTIONS OF SERIES OF FIVE BODIES HAVING CONICAL NOSES AND CYLINDRICAL AFTERBODIES. John R. Jack and Lawrence I. Gould. May 1952. 28p. diagrs., photos., tabs. (NACA RM E52C10)

CALIBRATION OF THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT TRANSONIC TUNNEL AND PRELIMINARY EXPERIMENTAL INVESTIGATION OF BOUNDARY-REFLECTED DISTURBANCES. Virgil S. Ritchie and Albin O. Pearson. July 1952. 87p. diagrs., photos. (NACA RM L51K14)

AIR-FLOW AND POWER CHARACTERISTICS OF THE LANGLEY 16-FOOT TRANSONIC TUNNEL WITH SLOTTED TEST SECTION. Vernon G. Ward, Charles F. Whitcomb, and Merwin D. Pearson. July 1952. 50p. diagrs., photos. (NACA RM L52E01)

FORCES AND MOMENTS ON POINTED AND BLUNT-NOSED BODIES OF REVOLUTION AT MACH NUMBERS FROM 2.75 TO 5.00. David H. Dennis and Bernard E. Cunningham. August 1952. 47p. diagrs., photo., tabs. (NACA RM A52E22)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF RECTANGULAR WING AND BODY COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. August 1952. 74p. diagrs., tabs. (NACA RM L52E26)

A PRESSURE-DISTRIBUTION INVESTIGATION OF A FINENESS-RATIO-12.2 PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT $M = 1.59$ AND ANGLES OF ATTACK UP TO 36°. Morton Cooper, John P. Gapcynski, and Lowell E. Hasel. October 1952. 89p. diagrs., photos., tabs. (NACA RM L52G14a)

SOME OBSERVATIONS OF FLOW AT THE THROAT OF A TWO-DIMENSIONAL DIFFUSER AT THE MACH NUMBER OF 3.85. James F. Connors and Richard R. Woollett. November 1952. 13p. photos., diagrs. (NACA RM E52I04)

PERFORMANCE OF A SWEPT LEADING EDGE ROTOR OF THE SUPERSONIC TYPE WITH MIXED FLOW. Arthur W. Goldstein and Ralph L. Schacht. January 1953. 34p. diagrs., photo., tab. (NACA RM E52K03)

SOME EFFECTS OF A SONIC JET EXHAUST ON THE LOADING OVER A YAWED FIN AT A MACH NUMBER OF 3.03. John E. Hatch, Jr., and William M. Savelle. January 1953. 12p. diagrs., photo. (NACA RM L52L02a)

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

INVESTIGATION OF 16-INCH IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH ROTOR TURNING PAST AXIAL DIRECTION. John J. Jacklitch, Jr., and Melvin J. Hartmann. July 1953. 29p. diagrs., photos. (NACA RM E53D13)

INVESTIGATION OF A SUPERSONIC-COMPRESSOR ROTOR WITH TURNING TO AXIAL DIRECTION. I - ROTOR DESIGN AND PERFORMANCE. Edward R. Tysl, John F. Klapproth, and Melvin J. Hartmann. August 1953. 36p. diagrs., photos. (NACA RM E53F23)

UTILIZATION OF EXTERNAL-COMPRESSION DIFFUSION PRINCIPLE IN DESIGN OF SHOCK-IN-ROTOR SUPERSONIC COMPRESSOR BLADING. John W. R. Creagh and John F. Klapproth. September 1953. 37p. diagrs., photos., tab. (NACA RM E53F18)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

INVESTIGATION AT MACH NUMBERS OF 1.62, 1.93, AND 2.41 OF THE EFFECT OF OSCILLATION AMPLITUDE ON THE DAMPING IN PITCH OF DELTA-WING–BODY COMBINATIONS. Arthur Henderson, Jr. October 1953. 28p. diagrs., photos. (NACA RM L53H25)

THE EFFECT OF NOSE RADIUS AND SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A FUSELAGE AND A WING-FUSELAGE COMBINATION AT ANGLES OF ATTACK. John P. Gapcynski and A. Warner Robins. October 1953. 23p. diagrs. (NACA RM L53I23a)

PERFORMANCE OF A SUPERSONIC MIXED-FLOW ROTOR WITH A SWEPT LEADING EDGE AND 0.52 INLET RADIUS RATIO. Arthur W. Goldstein and Ralph L. Schacht. November 1953. 34p. diagrs., photos., tab. (NACA RM E53H27)

AN INVESTIGATION AT MACH NUMBER 2.40 OF FLAP-TYPE CONTROLS EQUIPPED WITH OVERHANG NOSE BALANCES. James N. Mueller. November 1953. 95p. diagrs., photos., tab. (NACA RM L53I21)

STATIC LATERAL STABILITY CHARACTERISTICS OF A 1.16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. Frederick C. Grant and Ross B. Robinson. November 1953. 39p. diagrs., photo., tabs. (NACA RM L53I29a)

AN EXPERIMENTAL INVESTIGATION OF THE TRANSONIC-FLOW-GENERATION AND SHOCK-WAVE-REFLECTION CHARACTERISTICS OF A TWO-DIMENSIONAL WIND TUNNEL WITH 24-PERCENT-OPEN, DEEP, MULTISLOTTED WALLS. Thomas B. Sellers, Don D. Davis, and George M. Stokes. December 1953. 37p. diagrs., photos. (NACA RM L53J28)

INVESTIGATION OF A SUPERSONIC-COMPRESSOR ROTOR WITH TURNING TO AXIAL DIRECTION. II - ROTOR COMPONENT OFF-DESIGN AND STAGE PERFORMANCE. Melvin J. Hartmann and Edward R. Tysl. March 1954. 31p. diagrs., photos. (NACA RM E53L24)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

AERODYNAMIC CHARACTERISTICS OF TWO FLAT-BOTTOMED BODIES AT MACH NUMBER OF 3.12. John R. Jack and Barry Moskowitz. April 1954. 9p. diagrs. (NACA RM E53L11b)

AN ANALYSIS OF PRESSURE STUDIES AND EXPERIMENTAL AND THEORETICAL DOWNWASH AND SIDEWASH BEHIND FIVE POINTED-TIP WINGS AT SUPERSONIC SPEEDS. William B. Boatright. April 1954. ii, 119p. diagrs., photos. (NACA RM L54B10)

OPTIMUM LIFTING BODIES AT HIGH SUPERSONIC AIRSPEEDS. Meyer M. Resnikoff. May 1954. 22p. diagrs., photo. (NACA RM A54B15)

LOW-VELOCITY TURNING AS A MEANS OF MINIMIZING BOUNDARY-LAYER ACCUMULATIONS RESULTING FROM SECONDARY FLOWS WITHIN TURBINE STATORS. Warner L. Stewart and Robert Y. Wong. May 1954. 18p. diagrs., photo. (NACA RM E54B16)

JET EFFECTS ON PRESSURE LOADING OF ALL-MOVABLE HORIZONTAL STABILIZER. Alfred S. Valerino. June 1954. 27p. diagrs., photo., tab. (NACA RM E54C24)

PERFORMANCE OF A SUPERSONIC ROTOR HAVING HIGH MASS FLOW. Ralph L. Schacht, Arthur W. Goldstein, and Harvey E. Neumann. July 1954. 34p. diagrs., photo., tab. (NACA RM E54D22)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

A METHOD FOR INCREASING THE EFFECTIVENESS OF STABILIZING SURFACES AT HIGH SUPERSONIC MACH NUMBERS. Charles H. McLellan. August 1954. 14p. diagrs. (NACA RM L54F21)

INVESTIGATION OF SUPERSONIC-COMPRESSOR ROTORS DESIGNED WITH EXTERNAL COMPRESSION. Lawrence J. Jahnsen and Melvin J. Hartmann. September 1954. 41p. diagrs., photos. (NACA RM E54G27a)

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS AT HIGH SUPERSONIC MACH NUMBERS OF A FAMILY OF DELTA WINGS HAVING DOUBLE-WEDGE SECTIONS WITH THE MAXIMUM THICKNESS AT 0.18 CHORD. Mitchel H. Bertram and William D. McCauley. October 1954. 54p. diagrs., photos., tabs. (NACA RM L54G28)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE EFFECT OF JET MACH NUMBER AND DIVERGENCE ANGLE OF THE NOZZLE UPON THE PRESSURE OF THE BASE ANNULUS OF A BODY OF REVOLUTION. August F. Bromm, Jr., and Robert M. O'Donnell. December 1954. 24p. diagrs., photos. (NACA RM L54I16)

DESIGN AND PERFORMANCE OF A 1400-FOOT-PER-SECOND-TIP-SPEED SUPERSONIC COMPRESSOR ROTOR. John F. Klapproth, John J. Jacklitch, Jr., and Edward R. Tysl. April 1955. 48p. diagrs., photo., tab. (NACA RM E55A27)

SOME STUDIES OF AXISYMMETRIC FREE JETS EXHAUSTING FROM SONIC AND SUPERSONIC NOZZLES INTO STILL AIR AND INTO SUPERSONIC STREAMS. Eugene S. Love and Carl E. Grigsby. May 1955. ii, 178p. diagrs., photos., tabs. (NACA RM L54L31)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.62. Donald E. Coletti. May 1955. 49p. diagrs., photo., tabs. (NACA RM L55B25)

INVESTIGATION OF THE EFFECTS OF BODY INDENTATION AND OF WING-PLAN-FORM MODIFICATION ON THE LONGITUDINAL CHARACTERISTICS OF A 60° SWEPT-WING–BODY COMBINATION AT MACH NUMBERS OF 1.41, 1.61, AND 2.01. John R. Sevier, Jr. July 1955. 37p. diagrs., tab. (NACA RM L55E17)

A VARIABLE-GEOMETRY AXISYMMETRIC SUPERSONIC INLET WITH TELESCOPING CENTERBODY. James F. Connors and Rudolph C. Meyer. September 1955. 27p. diagrs., photos., tabs. (NACA RM E55F30)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - PRELIMINARY TESTS ON TRANSPIRATION COOLING OF A FLAT PLATE AT $M = 2.7$ WITH AIR AS THE INJECTED GAS. Morris W. Rubesin, Constantine C. Pappas, and Arthur F. Okuno. December 1955. 37p. diagrs. (NACA RM A55I19)

(1) AERODYNAMICS

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR-WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.94. Donald E. Coletti. December 1955. 52p. diagrs., photo., tabs. (NACA RM L55I14)

A METHOD FOR THE DESIGN OF POROUS-WALL WIND TUNNELS. George M. Stokes. January 1956. 50p. diagrs., photo., tabs. (NACA RM L55J13a)

INITIAL INCLINATION OF THE MIXING BOUNDARY SEPARATING AN EXHAUSTING SUPERSONIC JET FROM A SUPERSONIC AMBIENT STREAM. Eugene S. Love. January 1956. 30p. diagrs. (NACA RM L55J14)

THE INFLUENCE OF SURFACE INJECTION ON HEAT TRANSFER AND SKIN FRICTION ASSOCIATED WITH THE HIGH-SPEED TURBULENT BOUNDARY LAYER. Morris W. Rubesin. February 1956. 16p. diagrs. (NACA RM A55L13)

CRITERIA FOR INITIAL FLOW REVERSAL IN SYMMETRICAL TWIN-INTAKE AIR-INDUCTION SYSTEMS OPERATING AT SUPERSONIC SPEEDS. Andrew Beke. February 1956. 17p. diagrs. (NACA RM E55L02a)

AERODYNAMIC LOADINGS ASSOCIATED WITH SWEPT AND UNSWEPT SPOILERS ON A FLAT PLATE AT MACH NUMBERS OF 1.61 AND 2.01. Douglas R. Lord and K. R. Czarnecki. March 1956. 174p. diagrs., photos., tabs. (NACA RM L55L12)

EFFECT OF MACH NUMBER ON BOUNDARY-LAYER TRANSITION IN THE PRESENCE OF PRESSURE RISE AND SURFACE ROUGHNESS ON AN OGIVE-CYLINDER BODY WITH COLD WALL CONDITIONS. Robert J. Carros. April 1956. 30p. diagrs., photos. (NACA RM A56B15)

EXPERIMENTAL INVESTIGATION OF INTERFERENCE EFFECTS OF LATERAL-SUPPORT STRUTS ON AFTERBODY PRESSURES AT MACH 1.9. John L. Klann and Ronald G. Huff. May 1956. 13p. diagrs., tab. (NACA RM E56C16)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - THE EFFECT ON SKIN FRICTION OF AIR INJECTED INTO THE BOUNDARY LAYER OF A CONE AT M = 2.7. Thorval Tendeland and Arthur F. Okuno. June 1956. 23p. diagrs. (NACA RM A56D05)

WIND-TUNNEL INVESTIGATION OF THE DAMPING IN ROLL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS. Russell W. McDearmon. September 1956. 36p. diagrs., photos. (NACA RM L56F07)

WIND-TUNNEL INVESTIGATION OF DAMPING IN ROLL AT SUPERSONIC SPEEDS OF TRIANGULAR WINGS AT ANGLES OF ATTACK. Russell W. McDearmon and Robert A. Jones. September 1956. 32p. diagrs., photos., tab. (NACA RM L56F13a)

BOUNDARIES OF SUPERSONIC AXISYMMETRIC FREE JETS. Eugene S. Love, Mildred J. Woodling, and Louise P. Lee. October 1956. 98p. diagrs. (NACA RM L56G18)

LINEARIZED LIFTING-SURFACE AND LIFTING-LINE EVALUATIONS OF SIDEWASH BEHIND ROLLING TRIANGULAR WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt. 1957. ii, 19p. diagrs., photo. (NACA Rept. 1301. Supersedes TN 3609)

BODIES OF REVOLUTION HAVING MINIMUM DRAG AT HIGH SUPERSONIC AIRSPEEDS. A. J. Eggers, Jr., Meyer M. Resnikoff, and David H. Dennis. 1957. ii, 12p. diagrs., photos. (NACA Rept. 1306. Supersedes TN 3666)

AN INVESTIGATION OF FOUR WINGS OF SQUARE PLAN FORM AT A MACH NUMBER OF 6.9 IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL. Charles H. McLellan, Mitchel H. Bertram, and John A. Moore. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1310. Supersedes RM L51D17)

SOME EFFECTS OF BLUNTNESS ON BOUNDARY-LAYER TRANSITION AND HEAT TRANSFER AT SUPERSONIC SPEEDS. W. E. Moeckel. 1957. ii, 14p. diagrs. (NACA Rept. 1312. Supersedes TN 3653)

EXPLORATORY INVESTIGATION OF BOUNDARY-LAYER TRANSITION ON A HOLLOW CYLINDER AT A MACH NUMBER OF 6.9. Mitchel H. Bertram. 1957. ii, 27p. diagrs., photos. (NACA Rept. 1313. Supersedes TN 3546)

ON SLENDER-BODY THEORY AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. 1957. ii, 6p. (NACA Rept. 1315. Supersedes TN 3815)

AN EVALUATION OF FOUR EXPERIMENTAL METHODS FOR MEASURING MEAN PROPERTIES OF A SUPERSONIC TURBULENT BOUNDARY LAYER. George J. Nothwang. 1957. ii, 11p. diagrs., photos. (NACA Rept. 1320. Supersedes TN 3721)

A SECOND-ORDER SHOCK-EXPANSION METHOD APPLICABLE TO BODIES OF REVOLUTION NEAR ZERO LIFT. Clarence A. Syvertson and David H. Dennis. 1957. ii, 20p. diagrs., tabs. (NACA Rept. 1328. Supersedes TN 3527)

MINIMUM WAVE DRAG FOR ARBITRARY ARRANGEMENTS OF WINGS AND BODIES. Robert T. Jones. 1957. ii, 6p. diagrs., photo. (NACA Rept. 1335. Supersedes TN 3530)

INVESTIGATION OF DOWNWASH, SIDEWASH, AND MACH NUMBER DISTRIBUTION BEHIND A RECTANGULAR WING AT A MACH NUMBER OF 2.41. David Adamson and William B. Boatright. 1957. ii, 57p. diagrs., photos., tab. (NACA Rept. 1340. Supersedes RM L50G12)

THE MINIMIZATION OF WAVE DRAG FOR WINGS AND BODIES WITH GIVEN BASE AREA OR VOLUME. Max. A. Heaslet. July 1957. 27p. (NACA TN 3289)

EXPERIMENTAL INVESTIGATION OF ATTENUATION OF STRONG SHOCK WAVES IN A SHOCK TUBE WITH HYDROGEN AND HELIUM AS DRIVER GASES. Jim J. Jones. July 1957. 24p. diagrs., photo. (NACA TN 4072)

EQUATIONS, TABLES, AND FIGURES FOR USE IN THE ANALYSIS OF HELIUM FLOW AT SUPERSONIC AND HYPERSONIC SPEEDS. James N. Mueller. September 1957. 178p. diagrs., tab. (NACA TN 4063)

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

HEAT TRANSFER AND BOUNDARY-LAYER TRANSITION ON TWO BLUNT BODIES AT MACH NUMBER 3.12. N. S. Diaconis, Richard J. Wisniewski, and John R. Jack. October 1957. 31p. diagrs., photo. (NACA TN 4099)

STUDY OF PRESSURE DISTRIBUTIONS ON SIMPLE SHARP-NOSED MODELS AT MACH NUMBERS FROM 16 TO 18 IN HELIUM FLOW. Wayne D. Erickson. October 1957. 42p. diagrs., photos. (NACA TN 4113)

A RAPID METHOD FOR PREDICTING ATTACHED-SHOCK SHAPE. Eugene S. Love and Ronald H. Long. October 1957. 34p. diagrs., tab. (NACA TN 4167)

HEAT TRANSFER AND RECOVERY TEMPERATURES ON A SPHERE WITH LAMINAR, TRANSITIONAL, AND TURBULENT BOUNDARY LAYERS AT MACH NUMBERS OF 2.00 AND 4.15. Ivan E. Beckwith and James J. Gallagher. December 1957. 59p. diagrs., photos. (NACA TN 4125)

EFFECTS OF LEADING-EDGE BLUNTING ON THE LOCAL HEAT TRANSFER AND PRESSURE DISTRIBUTIONS OVER FLAT PLATES IN SUPERSONIC FLOW. Marcus O. Creager. December 1957. 54p. diagrs., tabs. (NACA TN 4142)

LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT ANGLE OF ATTACK IN A SUPERSONIC STREAM. Eli Reshotko. December 1957. (i), 64p. diagrs., tabs. (NACA TN 4152)

A REEXAMINATION OF THE USE OF SIMPLE CONCEPTS FOR PREDICTING THE SHAPE AND LOCATION OF DETACHED SHOCK WAVES. Eugene S. Love. December 1957. 53p. diagrs. (NACA TN 4170)

EFFECT OF ANGLE OF ATTACK AND THICKNESS ON AERODYNAMIC COEFFICIENTS OF A RIGID WING OSCILLATING AT VERY LOW FREQUENCIES IN TWO-DIMENSIONAL SUPERSONIC FLOW. Frank S. Malvestuto, Jr., and Julia M. Goodwin. January 1958. 65p. diagrs. (NACA TN 4069)

THEORETICAL CALCULATIONS OF SUPERSONIC WAVE DRAG AT ZERO LIFT FOR A PARTICULAR STORE ARRANGEMENT. Kenneth Margolis, Frank S. Malvestuto, Jr., and Peter J. Maxie, Jr. January 1958. 37p. diagrs., tab. (NACA TN 4120)

SHAPE OF INITIAL PORTION OF BOUNDARY OF SUPERSONIC AXISYMMETRIC FREE JETS AT LARGE JET PRESSURE RATIOS. Eugene S. Love and Louise P. Lee. January 1958. 29p. diagrs. (NACA TN 4195)

TURBULENT BOUNDARY LAYER ON A YAWED CONE IN A SUPERSONIC STREAM. Willis H. Braun. January 1958. 39p. diagrs. (NACA TN 4208)

BOUNDARY-LAYER DISPLACEMENT EFFECTS IN AIR AT MACH NUMBERS OF 6.8 AND 9.6. Mitchel H. Bertram. February 1958. 61p. diagrs., photos. (NACA TN 4133)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. February 1958. 52p. diagrs., photos. (NACA TN 4180. Supersedes RM L52L31)

RECOVERY TEMPERATURES AND HEAT TRANSFER NEAR TWO-DIMENSIONAL ROUGHNESS ELEMENTS AT MACH 3.1. Paul F. Brinich. February 1958. 20p. diagrs. (NACA TN 4213)

BOUNDARY-LAYER TRANSITION ON AN OPEN-NOSE CONE AT MACH 3.1. Paul F. Brinich. February 1958. 11p. diagrs. (NACA TN 4214)

DRAG MINIMIZATION FOR WINGS IN SUPERSONIC FLOW, WITH VARIOUS CONSTRAINTS. Max. A. Heaslet and Franklyn B. Fuller. February 1958. 30p. (NACA TN 4227)

APPROXIMATIONS FOR THE THERMODYNAMIC AND TRANSPORT PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen. March 1958. 67p. diagrs., tabs. (NACA TN 4150)

PRANDTL-MEYER EXPANSION OF CHEMICALLY REACTING GASES IN LOCAL CHEMICAL AND THERMODYNAMIC EQUILIBRIUM. Steve P. Heims. March 1958. 17p. diagrs. (NACA TN 4230)

EXTREME SPEEDS AND THERMODYNAMIC STATES IN SUPERSONIC FLIGHT. (Extreme Geschwindigkeiten und thermische Zustände beim Überschallflug.) Klaus Oswatitsch. April 1958. 39p. diagrs., tabs. (NACA TM 1434. Translation from Zeitschrift für Flugwissenschaften, v.4, no.3/4, 1956, p.95-108)

(1) AERODYNAMICS

OBSERVATIONS OF TURBULENT-BURST GEOMETRY AND GROWTH IN SUPERSONIC FLOW. Carlton S. James. April 1958. (i), 85p. diagrs., photos., tab. (NACA TN 4235)

EFFECTS OF MACH NUMBER AND WALL-TEMPERATURE RATIO ON TURBULENT HEAT TRANSFER AT MACH NUMBERS FROM 3 TO 5. Thorval Tendeland. April 1958. 46p. diagrs. (NACA TN 4236)

ANALYSIS OF TURBULENT FLOW AND HEAT TRANSFER ON A FLAT PLATE AT HIGH MACH NUMBERS WITH VARIABLE FLUID PROPERTIES. R. G. Deissler and A. L. Loeffler, Jr. April 1958. 61p. diagrs. (NACA TN 4262)

SUMMARY OF EXPERIMENTAL HEAT-TRANSFER MEASUREMENTS IN TURBULENT FLOW FOR A MACH NUMBER RANGE FROM 0.87 TO 5.05. Maurice J. Brevoort and Barbara D. Arabian. May 1958. 43p. diagrs., photos., tab. (NACA TN 4248)

A PERFORMANCE ANALYSIS OF METHODS FOR HANDLING EXCESS INLET FLOW AT SUPERSONIC SPEEDS. Donald P. Hearth and James F. Connors. May 1958. 26p. diagrs., tab. (NACA TN 4270)

EXPERIMENTAL INVESTIGATION OF AN IMPULSE-TYPE SUPERSONIC COMPRESSOR ROTOR HAVING A TURNING OF 73° AT THE MEAN RADIUS. James R. Sterrett. June 1958. 35p. diagrs., photos., tabs. (NACA TN 4252)

HEAT-TRANSFER AND PRESSURE MEASUREMENTS ON FLAT-FACED CYLINDERS AT A MACH NUMBER OF 2. William E. Stoney, Jr., and J. Thomas Markley. July 1958. 38p. diagrs., photos., tab. (NACA TN 4300)

EFFECT OF FAVORABLE PRESSURE GRADIENTS ON TRANSITION FOR SEVERAL BODIES OF REVOLUTION AT MACH 3.12. John R. Jack. July 1958. 28p. diagrs., photo. (NACA TN 4313)

A REVIEW OF THE THERMODYNAMIC, TRANSPORT, AND CHEMICAL REACTION RATE PROPERTIES OF HIGH-TEMPERATURE AIR C. Frederick Hansen and Steve P. Heims. July 1958. 33p. diagrs. (NACA TN 4359)

THEORY AND EXPERIMENTS ON SUPERSONIC AIR-TO-AIR EJECTORS. (Theorie et experimentation des ejecteurs supersoniques air-air.) J. Fabri and J. Paulon. September 1958. 30p. diagrs. (NACA TM 1410. Translation of Office National d'Etudes et de Recherches Aeronautiques. Note Technique no. 36, 1956)

SECOND-ORDER SLENDER-BODY THEORY - AXISYMMETRIC FLOW. Milton D. Van Dyke. September 1958. (i), 46p. (NACA TN 4281)

A MACH 4 ROCKET-POWERED SUPERSONIC TUNNEL USING AMMONIA-OXYGEN AS WORKING FLUID. Robert W. Graham, Eleanor Costilow Guentert, and Vearl N. Huff. September 1958. 53p. diagrs., photos. (NACA TN 4325)

HYPERSONIC VISCOUS FLOW OVER SLENDER CONES. Lawrence Talbot, Toyoki Koga, and Pauline M. Sherman, University of California. September 1958. 34p. diagrs., photo., tab. (NACA TN 4327)

EFFECT OF SOME EXTERNAL CROSSWISE STIFFENERS ON THE HEAT TRANSFER AND PRESSURE DISTRIBUTION ON A FLAT PLATE AT MACH NUMBERS OF 0.77, 1.39, AND 1.98. Howard S. Carter. September 1958. 21p. diagrs., photo., tab. (NACA TN 4333)

TABLES AND GRAPHS OF NORMAL-SHOCK PARAMETERS AT HYPERSONIC MACH NUMBERS AND SELECTED ALTITUDES. Paul W. Huber. September 1958. 26p. diagrs., tabs. (NACA TN 4352)

SUPERSONIC WAVE INTERFERENCE AFFECTING STABILITY. Eugene S. Love. September 1958. 19p. diagrs., photos. (NACA TN 4358. Supersedes RM L55L14a)

AN INVESTIGATION OF SUPERSONIC TURBULENT BOUNDARY LAYERS ON SLENDER BODIES OF REVOLUTION IN FREE FLIGHT BY USE OF A MACH-ZEHNDER INTERFEROMETER AND SHADOWGRAPHS. Alvin Seiff and Barbara J. Short. September 1958. 57p. diagrs., photos. (NACA TN 4364)

A STUDY OF SEVERAL THEORETICAL METHODS FOR COMPUTING THE ZERO-LIFT WAVE DRAG OF A FAMILY OF OPEN-NOSED BODIES OF REVOLUTION IN THE MACH NUMBER RANGE OF 2.0 TO 4.0. Leroy L. Presley and Emmet A. Mossman. September 1958. 61p. diagrs. (NACA TN 4368)

PRELIMINARY HEAT-TRANSFER STUDIES ON TWO BODIES OF REVOLUTION AT ANGLE OF ATTACK AT A MACH NUMBER OF 3.12. Norman Sands and John R. Jack. September 1958. 29p. diagrs., photos., tabs. (NACA TN 4378)

APPROXIMATE METHOD FOR CALCULATION OF LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT LARGE ANGLE OF ATTACK IN SUPERSONIC FLOW. William E. Brunk. September 1958. 26p. diagrs., tab. (NACA TN 4380)

COMPARISON OF SHOCK-EXPANSION THEORY WITH EXPERIMENT FOR THE LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF TWO WING-BODY COMBINATIONS AT M = 5.0. Raymond C. Savin. September 1958. 13p. diagrs. (NACA TN 4385)

FREE-FLIGHT INVESTIGATION TO DETERMINE THE DRAG OF FLAT- AND VEE-WINDSHIELD CANOPIES ON A PARABOLIC FUSELAGE WITH AND WITHOUT TRANSONIC INDENTATION BETWEEN MACH NUMBERS OF 0.75 AND 1.35. Walter L. Kouyoumjian and Sherwood Hoffman. September 1958. 34p. diagrs., photos., tabs. (NACA TN 4405)

(1.1.3)
VISCOUS FLOW

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2 x 10^6 TO 15 x 10^6. II - AERODYNAMIC LOAD DISTRIBUTIONS OF SERIES OF FIVE BODIES HAVING CONICAL NOSES AND CYLINDRICAL AFTERBODIES. John R. Jack and Lawrence I. Gould. May 1952. 28p. diagrs., photos., tabs. (NACA RM E52C10)

A PRESSURE-DISTRIBUTION INVESTIGATION OF A FINENESS-RATIO-12.2 PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT M = 1.59 AND ANGLES OF ATTACK UP TO 36°. Morton Cooper, John P. Gapcynski, and Lowell E. Hasel. October 1952. 89p. diagrs., photos., tabs. (NACA RM L52G14a)

AN INVESTIGATION AT MACH NUMBER 2.40 OF FLAP-TYPE CONTROLS EQUIPPED WITH OVERHANG NOSE BALANCES. James N. Mueller. November 1953. 95p. diagrs., photos., tab. (NACA RM L53I21)

INVESTIGATION OF SOME WAKE VORTEX CHARACTERISTICS OF AN INCLINED OGIVE-CYLINDER BODY AT MACH NUMBER 1.98. Leland H. Jorgensen and Edward W. Perkins. August 1955. 47p. diagrs., photos., tabs. (NACA RM A55E31)

A METHOD FOR THE DESIGN OF POROUS-WALL WIND TUNNELS. George M. Stokes. January 1956. 50p. diagrs., photo., tabs. (NACA RM L55J13a)

VISUALIZATION OF ROTOR TIP SECONDARY FLOWS WITH BLADE TIP AIR DISCHARGE AND SUCTION IN A LOW-SPEED TURBINE. Milton G. Kofskey and Hubert W. Allen. August 1956. 28p. diagrs., photos. (NACA RM E56E16)

SOME EFFECTS OF BLUNTNESS ON BOUNDARY-LAYER TRANSITION AND HEAT TRANSFER AT SUPERSONIC SPEEDS. W. E. Moeckel. 1957. ii, 14p. diagrs. (NACA Rept. 1312. Supersedes TN 3653)

STABILITY OF LAMINAR BOUNDARY LAYER NEAR A STAGNATION POINT OVER AN IMPERMEABLE WALL AND A WALL COOLED BY NORMAL FLUID INJECTION. Morris Morduchow, Richard G. Grape, and Richard P. Shaw, Polytechnic Institute of Brooklyn. August 1957. 56p. diagrs., tabs. (NACA TN 4037)

STUDY OF PRESSURE DISTRIBUTIONS ON SIMPLE SHARP-NOSED MODELS AT MACH NUMBERS FROM 16 TO 18 IN HELIUM FLOW. Wayne D. Erickson. October 1957. 42p. diagrs., photos. (NACA TN 4113)

MOMENTUM TRANSFER FOR FLOW OVER A FLAT PLATE WITH BLOWING. H. S. Mickley and R. S. Davis, Massachusetts Institute of Technology. November 1957. 64p. diagrs., tabs. (NACA TN 4017)

BOUNDARY-LAYER DISPLACEMENT EFFECTS IN AIR AT MACH NUMBERS OF 6.8 AND 9.6. Mitchel H. Bertram. February 1958. 61p. diagrs., photos. (NACA TN 4133)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. February 1958. 52p. diagrs., photos. (NACA TN 4180. Supersedes RM L52L31)

RECOVERY TEMPERATURES AND HEAT TRANSFER NEAR TWO-DIMENSIONAL ROUGHNESS ELEMENTS AT MACH 3.1. Paul F. Brinich. February 1958. 20p. diagrs. (NACA TN 4213)

APPROXIMATIONS FOR THE THERMODYNAMIC AND TRANSPORT PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen. March 1958. 67p. diagrs., tabs. (NACA TN 4150)

FREE CONVECTION UNDER THE CONDITIONS OF THE INTERNAL PROBLEM. (Svobodnaya convectzia v ousloviakh vnoutrennei zadachi.) G. A. Ostroumov. April 1958. vii, 233p. diagrs., photos., tabs. (NACA TM 1407. Translation of Russian Book, 1952)

A REVIEW OF THE THERMODYNAMIC, TRANSPORT, AND CHEMICAL REACTION RATE PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen and Steve P. Heims. July 1958. 33p. diagrs. (NACA TN 4359)

BOUNDARY-LAYER STABILITY DIAGRAMS FOR ELECTRICALLY CONDUCTING FLUIDS IN THE PRESENCE OF A MAGNETIC FIELD. Vernon J. Rossow. August 1958. 32p. diagrs., tabs. (NACA TN 4282)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY-LAYER FLOW OVER DEVELOPABLE SURFACES AND WITH PROPORTIONAL MAINSTREAM VELOCITY COMPONENTS. Arthur G. Hansen, Case Institute of Technology. September 1958. (ii), 79p. diagrs. (NACA TM 1437)

THE TURBULENT BOUNDARY LAYER ON A ROUGH CURVILINEAR SURFACE. (Turbulentnyi pogranichnyi sloi na sherpokhovatoĭ krivolineinoĭ poverkhnosti.) V. F. Droblenkov. September 1958. 10p. diagrs. (NACA TM 1440. Translation from Akademiia Nauk SSSR, Izvestiia, Otdelenie Tekhnicheskikh Nauk, no. 8, 1955, p. 17-21)

NATURAL CONVECTION INSIDE A FLAT ROTATING CONTAINER. Simon Ostrach and Willis H. Braun. September 1958. 27p. diagrs. (NACA TN 4323)

A NONLINEAR THEORY FOR PREDICTING THE EFFECTS OF UNSTEADY LAMINAR, TURBULENT, OR TRANSITIONAL BOUNDARY LAYERS ON THE ATTENUATION OF SHOCK WAVES IN A SHOCK TUBE WITH EXPERIMENTAL COMPARISON. Robert L. Trimpi and Nathaniel B. Cohen. September 1958. 105p. diagrs., photos., tab. (NACA TN 4347)

SOME NUMERICAL SOLUTIONS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL LAMINAR INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Peggy L. Yohner and Arthur G. Hansen. September 1958. 76p. diagrs., tabs. (NACA TN 4370)

APPROXIMATE SOLUTIONS OF A CLASS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL, LAMINAR, INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Arthur G. Hansen and Howard Z. Herzig. September 1958. 26p. diagrs. (NACA TN 4375)

(1.1.3.1) LAMINAR FLOW

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D13a)

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS AT HIGH SUPERSONIC MACH NUMBERS OF A FAMILY OF DELTA WINGS HAVING DOUBLE-WEDGE SECTIONS WITH THE MAXIMUM THICKNESS AT 0.18 CHORD. Mitchel H. Bertram and William D. McCauley. October 1954. 54p. diagrs., photos., tabs. (NACA RM L54G28)

CONTRIBUTIONS ON THE MECHANICS OF BOUNDARY-LAYER TRANSITION. G. B. Schubauer and P. S. Klebanoff, National Bureau of Standards. 1956. ii, 11p. diagrs. (NACA Rept. 1289. Supersedes TN 3489)

EFFECT OF MACH NUMBER ON BOUNDARY-LAYER TRANSITION IN THE PRESENCE OF PRESSURE RISE AND SURFACE ROUGHNESS ON AN OGIVE-CYLINDER BODY WITH COLD WALL CONDITIONS. Robert J. Carros. April 1956. 30p. diagrs., photos. (NACA RM A56B15)

AN INVESTIGATION OF FOUR WINGS OF SQUARE PLAN FORM AT A MACH NUMBER OF 6.9 IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL. Charles H. McLellan, Mitchel H. Bertram, and John A. Moore. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1310. Supersedes RM L51D17)

EXPLORATORY INVESTIGATION OF BOUNDARY-LAYER TRANSITION ON A HOLLOW CYLINDER AT A MACH NUMBER OF 6.9. Mitchel H. Bertram. 1957. ii, 27p. diagrs., photos. (NACA Rept. 1313. Supersedes TN 3546)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. 1957. ii, 21p. diagrs., photos., tab. (NACA Rept. 1323. Supersedes TN 3706)

AVERAGE PROPERTIES OF COMPRESSIBLE LAMINAR BOUNDARY LAYER ON FLAT PLATE WITH UNSTEADY FLIGHT VELOCITY. Franklin K Moore and Simon Ostrach. 1957. iii, 12p. diagrs., tabs. (NACA Rept. 1325. Supersedes TN 3886)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. 1957. iii, 19p. diagrs., tab. (NACA Rept. 1333. Supersedes TN 3278)

STABILITY LIMITS AND BURNING VELOCITIES FOR SOME LAMINAR AND TURBULENT PROPANE AND HYDROGEN FLAMES AT REDUCED PRESSURE. Burton Fine. August 1957. 49p. diagrs., tabs. (NACA TN 4031)

A DISCUSSION OF CONE AND FLAT-PLATE REYNOLDS NUMBERS FOR EQUAL RATIOS OF THE LAMINAR SHEAR TO THE SHEAR CAUSED BY SMALL VELOCITY FLUCTUATIONS IN A LAMINAR BOUNDARY LAYER. Neal Tetervin. August 1957. 25p. diagrs. (NACA TN 4078)

A THERMAL SYSTEM FOR CONTINUOUS MONITORING OF LAMINAR AND TURBULENT BOUNDARY-LAYER FLOWS DURING ROUTINE FLIGHT. Norman R. Richardson and Elmer A. Horton. September 1957. 25p. diagrs., photos. (NACA TN 4108)

EFFECTS OF EXTREME SURFACE COOLING ON BOUNDARY-LAYER TRANSITION. John R. Jack, Richard J. Wisniewski, and N. S. Diaconis. (Presented at Symposium on High-Speed Aerodynamics and Structures, Gainesville, Florida, January 22-24, 1957.) October 1957. 19p. diagrs., photo. (NACA TN 4094)

HEAT TRANSFER AND BOUNDARY-LAYER TRANSITION ON TWO BLUNT BODIES AT MACH NUMBER 3.12. N. S. Diaconis, Richard J. Wisniewski, and John R. Jack. October 1957. 31p. diagrs., photo. (NACA TN 4099)

ON THE SPECTRUM OF NATURAL OSCILLATIONS OF TWO-DIMENSIONAL LAMINAR FLOWS. (Über das Spektrum bei Eigenschwingungen ebener Laminarströmungen.) D. Grohne. December 1957. 34p. diagrs. (NACA TM 1417. Translation from Zeitschrift für angewandte Mathematik und Mechanik, v. 34, no. 8-9, August-September 1954, p. 344-357)

VELOCITY AND FRICTION CHARACTERISTICS OF LAMINAR VISCOUS BOUNDARY-LAYER AND CHANNEL FLOW OVER SURFACES WITH EJECTION OR SUCTION. E. R. G. Eckert, Patrick L. Donoughe and Betty Jo Moore. December 1957. 57p. diagrs., tabs. (NACA TN 4102)

HEAT TRANSFER AND RECOVERY TEMPERATURES ON A SPHERE WITH LAMINAR, TRANSITIONAL, AND TURBULENT BOUNDARY LAYERS AT MACH NUMBERS OF 2.00 AND 4.15. Ivan E. Beckwith and James J. Gallagher. December 1957. 59p. diagrs., photos. (NACA TN 4125)

EFFECTS OF LEADING-EDGE BLUNTING ON THE LOCAL HEAT TRANSFER AND PRESSURE DISTRIBUTIONS OVER FLAT PLATES IN SUPERSONIC FLOW. Marcus O. Creager. December 1957. 54p. diagrs., tabs. (NACA TN 4142)

LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT ANGLE OF ATTACK IN A SUPERSONIC STREAM. Eli Reshotko. December 1957. (i), 64p. diagrs., tabs. (NACA TN 4152)

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. 1958. ii, 16p. diagrs., photos. (NACA Rept. 1349. Supersedes TN 3858)

EVAPORATION, HEAT TRANSFER, AND VELOCITY DISTRIBUTION IN TWO-DIMENSIONAL AND ROTATIONALLY SYMMETRICAL LAMINAR BOUNDARY-LAYER FLOW. (Verdunstung, Warmeubergang und Geschwindigkeitsverteilung bei zweidimensionaler und rotationssymmetrischer laminarer Grenzschichtstromung.) Nils Frössling. February 1958. 37p. tabs. (NACA TM 1432. Translation from Lunds Universitets Arsskrift, v. 36, no. 4. Kungl. Fysiografiska Sallskapets Handlingar, v. 51, no. 4, 1940)

INVESTIGATION OF EFFECTS OF DISTRIBUTED SURFACE ROUGHNESS ON A TURBULENT BOUNDARY LAYER OVER A BODY OF REVOLUTION AT A MACH NUMBER OF 2.01. John R. Sevier, Jr., and K. R. Czarnecki. February 1958. 31p. diagrs., photos. (NACA TN 4183)

BOUNDARY-LAYER TRANSITION ON AN OPEN-NOSE CONE AT MACH 3.1. Paul F. Brinich. February 1958. 11p. diagrs. (NACA TN 4214)

EFFECT OF DISTRIBUTED GRANULAR-TYPE ROUGHNESS ON BOUNDARY-LAYER TRANSITION AT SUPERSONIC SPEEDS WITH AND WITHOUT SURFACE COOLING. Albert L. Braslow. March 1958. 22p. diagrs., photos. (NACA RM L58A17)

FREE CONVECTION UNDER THE CONDITIONS OF THE INTERNAL PROBLEM. (Svobodnaya convectzia v ousloviakh vnoutrennei zadachi.) G. A. Ostroumov. April 1958. vii, 233p. diagrs., photos., tabs. (NACA TM 1407. Translation of Russian Book, 1952)

OBSERVATIONS OF TURBULENT-BURST GEOMETRY AND GROWTH IN SUPERSONIC FLOW. Carlton S. James. April 1958. (i), 85p. diagrs., photos., tab. (NACA TN 4235)

MEASUREMENT OF THE EFFECT OF AN AXIAL MAGNETIC FIELD ON THE REYNOLDS NUMBER OF TRANSITION IN MERCURY FLOWING THROUGH A GLASS TUBE. Michel Bader and William C. A. Carlson. May 1958. 8p. diagrs. (NACA TN 4274)

ON PAIRS OF SOLUTIONS OF A CLASS OF INTERNAL VISCOUS FLOW PROBLEMS WITH BODY FORCES. Simon Ostrach and Lynn U. Albers. June 1958. 21p. diagrs., tabs. (NACA TN 4273)

PRANDTL NUMBER EFFECTS ON UNSTEADY FORCED-CONVECTION HEAT TRANSFER. E. M. Sparrow and J. L. Gregg. June 1958. 14p. diagrs., tab. (NACA TN 4311)

EFFECTS OF BOUNDARY-LAYER DISPLACEMENT AND LEADING-EDGE BLUNTNESS ON PRESSURE DISTRIBUTION, SKIN FRICTION, AND HEAT TRANSFER OF BODIES AT HYPERSONIC SPEEDS. Mitchel H. Bertram and Arthur Henderson, Jr. July 1958. 33p. diagrs. (NACA TN 4301)

EFFECT OF FAVORABLE PRESSURE GRADIENTS ON TRANSITION FOR SEVERAL BODIES OF REVOLUTION AT MACH 3.12. John R. Jack. July 1958. 28p. diagrs., photo. (NACA TN 4313)

COMPRESSIBLE LAMINAR FLOW AND HEAT TRANSFER ABOUT A ROTATING ISOTHERMAL DISK. Simon Ostrach and Philip R. Thornton. August 1958. 18p. diagrs., tab. (NACA TN 4320)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY-LAYER FLOW OVER DEVELOPABLE SURFACES AND WITH PROPORTIONAL MAINSTREAM VELOCITY COMPONENTS. Arthur G. Hansen, Case Institute of Technology. September 1958. (ii), 79p. diagrs. (NACA TM 1437)

ON FULLY DEVELOPED CHANNEL FLOWS: SOME SOLUTIONS AND LIMITATIONS, AND EFFECTS OF COMPRESSIBILITY, VARIABLE PROPERTIES, AND BODY FORCES. Stephen H. Maslen. September 1958. 46p. diagrs., tabs. (NACA TN 4319)

HYPERSONIC VISCOUS FLOW OVER SLENDER CONES. Lawrence Talbot, Toyoki Koga, and Pauline M. Sherman, University of California. September 1958. 34p. diagrs., photo., tab. (NACA TN 4327)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE BOUNDARY LAYER ON A YAWED CYLINDER WITH TRANSPIRATION COOLING. Ivan E. Beckwith. September 1958. 72p. diagrs., tabs. (NACA TN 4345)

THEORETICAL DISTRIBUTION OF LAMINAR-BOUNDARY-LAYER THICKNESS, BOUNDARY-LAYER REYNOLDS NUMBER AND STABILITY LIMIT, AND ROUGHNESS REYNOLDS NUMBER FOR A SPHERE AND DISK IN INCOMPRESSIBLE FLOW. Neal Tetervin. September 1958. 36p. diagrs. (NACA TN 4350)

SIMPLIFIED METHOD FOR DETERMINATION OF CRITICAL HEIGHT OF DISTRIBUTED ROUGHNESS PARTICLES FOR BOUNDARY-LAYER TRANSITION AT MACH NUMBERS FROM 0 TO 5. Albert L. Braslow and Eugene C. Knox. September 1958. 18p. diagrs., photos. (NACA TN 4363)

SOME NUMERICAL SOLUTIONS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL LAMINAR INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Peggy L. Yohner and Arthur G. Hansen. September 1958. 76p. diagrs., tabs. (NACA TN 4370)

APPROXIMATE SOLUTIONS OF A CLASS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL, LAMINAR, INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Arthur G. Hansen and Howard Z. Herzig. September 1958. 26p. diagrs. (NACA TN 4375)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF TEMPERATURE RECOVERY FACTORS FOR FULLY DEVELOPED FLOW OF AIR IN A TUBE. R. G. Deissler, W. F. Welland, and W. H. Lowdermilk. September 1958. 35p. diagrs., tab. (NACA TN 4376)

PRELIMINARY HEAT-TRANSFER STUDIES ON TWO BODIES OF REVOLUTION AT ANGLE OF ATTACK AT A MACH NUMBER OF 3.12. Norman Sands and John R. Jack. September 1958. 29p. diagrs., photos., tabs. (NACA TN 4378)

APPROXIMATE METHOD FOR CALCULATION OF LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT LARGE ANGLE OF ATTACK IN SUPERSONIC FLOW. William E. Brunk. September 1958. 26p. diagrs., tab. (NACA TN 4380)

EFFECTS OF NOSE ANGLE AND MACH NUMBER ON TRANSITION ON CONES AT SUPERSONIC SPEEDS. K. R. Czarnecki and Mary W. Jackson. September 1958. 17p. diagrs., photo. (NACA TN 4388)

MASS TRANSFER COOLING NEAR THE STAGNATION POINT. Leonard Roberts. September 1958. 42p. diagrs. (NACA TN 4391)

A THEORETICAL STUDY OF STAGNATION-POINT ABLATION. Leonard Roberts. September 1958. 29p. diagrs. (NACA TN 4392)

(1.1.3.2) TURBULENT FLOW

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO, BODY INDENTATION, FIXED TRANSITION, AND AFTERBODY SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Francis G. Morgan, Jr., and Melvin M. Carmel. March 1954. 37p. diagrs., tab. (NACA RM L54A15)

LOW-VELOCITY TURNING AS A MEAN. OF MINIMIZING BOUNDARY-LAYER ACCUMULATIONS RESULTING FROM SECONDARY FLOWS WITHIN TURBINE STATORS. Warner L. Stewart and Robert Y. Wong. May 1954. 18p. diagrs., photo. (NACA RM E54B16)

FLIGHT MEASUREMENTS OF AVERAGE SKIN-FRICTION COEFFICIENTS ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.0 TO 3.7. J. Dan Loposer and Charles B. Rumsey. August 1954. 32p. diagrs., photos. (NACA RM L54G14)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - PRELIMINARY TESTS ON TRANSPIRATION COOLING OF A FLAT PLATE AT M = 2.7 WITH AIR AS THE INJECTED GAS. Morris W. Rubesin, Constantine C. Pappas, and Arthur F. Okuno. December 1955. 37p. diagrs. (NACA RM A55I19)

CONTRIBUTIONS ON THE MECHANICS OF BOUNDARY-LAYER TRANSITION. G. B. Schubauer and P. S. Klebanoff, National Bureau of Standards. 1956. ii, 11p. diagrs. (NACA Rept. 1289. Supersedes TN 3489)

THE INFLUENCE OF SURFACE INJECTION ON HEAT TRANSFER AND SKIN FRICTION ASSOCIATED WITH THE HIGH-SPEED TURBULENT BOUNDARY LAYER. Morris W. Rubesin. February 1956. 16p. diagrs. (NACA RM A55L13)

EFFECT OF MACH NUMBER ON BOUNDARY-LAYER TRANSITION IN THE PRESENCE OF PRESSURE RISE AND SURFACE ROUGHNESS ON AN OGIVE-CYLINDER BODY WITH COLD WALL CONDITIONS. Robert J. Carros. April 1956. 30p. diagrs., photos. (NACA RM A56B15)

LIGHT DIFFUSION THROUGH HIGH-SPEED TURBULENT BOUNDARY LAYERS. Howard A. Stine and Warren Winovich. May 1956. 46p. diagrs., photos., tabs. (NACA RM A56B21)

EXPERIMENTAL INVESTIGATION OF INTERFERENCE EFFECTS OF LATERAL-SUPPORT STRUTS ON AFTERBODY PRESSURES AT MACH 1.9. John L. Klann and Ronald G. Huff. May 1956. 13p. diagrs., tab. (NACA RM E56C16)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - THE EFFECT ON SKIN FRICTION OF AIR INJECTED INTO THE BOUNDARY LAYER OF A CONE AT M = 2.7. Thorval Tendeland and Arthur F. Okuno. June 1956. 23p. diagrs. (NACA RM A56D05)

EXPLORATORY INVESTIGATION OF BOUNDARY-LAYER TRANSITION ON A HOLLOW CYLINDER AT A MACH NUMBER OF 6.9. Mitchel H. Bertram. 1957. ii, 27p. diagrs., photos. (NACA Rept. 1313. Supersedes TN 3546)

AN EVALUATION OF FOUR EXPERIMENTAL METHODS FOR MEASURING MEAN PROPERTIES OF A SUPERSONIC TURBULENT BOUNDARY LAYER. George J. Nothwang. 1957. [illegible] diagrs., photos. (NACA Rept. 1320. Supersedes TN 3721)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. 1957. iii, 19p. diagrs., tab. (NACA Rept. 1333. Supersedes TN 3278)

AN INVESTIGATION OF FLOW IN CIRCULAR AND ANNULAR 90° BENDS WITH A TRANSITION IN CROSS SECTION. Stafford W. Wilbur. August 1957. 32p. diagrs., photos., tabs. (NACA TN 3995)

STABILITY LIMITS AND BURNING VELOCITIES FOR SOME LAMINAR AND TURBULENT PROPANE AND HYDROGEN FLAMES AT REDUCED PRESSURE. Burton Fine. August 1957. 49p. diagrs., tabs. (NACA TN 4031)

A DISCUSSION OF CONE AND FLAT-PLATE REYNOLDS NUMBERS FOR EQUAL RATIOS OF THE LAMINAR SHEAR TO THE SHEAR CAUSED BY SMALL VELOCITY FLUCTUATIONS IN A LAMINAR BOUNDARY LAYER. Neal Tetervin. August 1957. 25p. diagrs. (NACA TN 4078)

THE PRINCIPLES OF TURBULENT HEAT TRANSFER. (Die Grundlagen des Turbulenten Warmeuberganges.) H. Reichardt. September 1957. 45p. diagrs., tabs. (NACA TM 1408. Translation from Archiv fur die gesamte Warmetechnik, no. 6/7, 1951, p.129-142)

A THERMAL SYSTEM FOR CONTINUOUS MONITORING OF LAMINAR AND TURBULENT BOUNDARY-LAYER FLOWS DURING ROUTINE FLIGHT. Norman R. Richardson and Elmer A. Horton. September 1957. 25p. diagrs., photos. (NACA TN 4108)

INFLUENCE OF TURBULENCE ON TRANSFER OF HEAT FROM CYLINDERS. J. Kestin and P. F. Maeder, Brown University. October 1957. 78p. diagrs., tabs. (NACA TN 4018)

EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR A TURBULENT BOUNDARY LAYER IN SUBSONIC FLOW USING AIR AS A COOLANT. William E. Brunk. October 1957. 35p. diagrs. (NACA TN 4091)

EFFECTS OF EXTREME SURFACE COOLING ON BOUNDARY-LAYER TRANSITION. John R. Jack, Richard J. Wisniewski, and N. S. Diaconis. (Presented at Symposium on High-Speed Aerodynamics and Structures, Gainesville, Florida, January 22-24, 1957.) October 1957. 19p. diagrs., photo. (NACA TN 4094)

HEAT TRANSFER AND BOUNDARY-LAYER TRANSITION ON TWO BLUNT BODIES AT MACH NUMBER 3.12. N. S. Diaconis, Richard J. Wisniewski, and John R. Jack. October 1957. 31p. diagrs., photo. (NACA TN 4099)

TURBULENCE MEASUREMENTS IN MULTIPLE INTERFERING AIR JETS. James C. Laurence and Jean M. Benninghoff. December 1957. 37p. diagrs., photos. (NACA TN 4029)

HEAT TRANSFER AND RECOVERY TEMPERATURES ON A SPHERE WITH LAMINAR, TRANSITIONAL, AND TURBULENT BOUNDARY LAYERS AT MACH NUMBERS OF 2.00 AND 4.15. Ivan E. Beckwith and James J. Gallagher. December 1957. 59p. diagrs., photos. (NACA TN 4125)

APPROXIMATE CALCULATION OF THE COMPRESSIBLE TURBULENT BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Eli Reshotko and Maurice Tucker. December 1957. 34p. diagrs. (NACA TN 4154)

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. 1958. ii, 16p. diagrs., photos. (NACA Rept. 1349. Supersedes TN 3858)

ON THE STATISTICAL THEORY OF TURBULENCE. (Zur statistischen Theorie der Turbulenz). W. Heisenberg. January 1958. 36p. diagrs. (NACA TM 1431. Translation from Zeitschrift für Physik, v.124, 1948, p.628-657)

TURBULENT BOUNDARY LAYER ON A YAWED CONE IN A SUPERSONIC STREAM. Willis H. Braun. January 1958. 39p. diagrs. (NACA TN 4208)

AN ANALYSIS OF THE TURBULENT BOUNDARY-LAYER CHARACTERISTICS ON A FLAT PLATE WITH DISTRIBUTED LIGHT-GAS INJECTION. Morris W. Rubesin and Constantine C. Pappas. February 1958. 43p. diagrs. (NACA TN 4149)

INVESTIGATION OF EFFECTS OF DISTRIBUTED SURFACE ROUGHNESS ON A TURBULENT BOUNDARY LAYER OVER A BODY OF REVOLUTION AT A MACH NUMBER OF 2.01. John R. Sevier, Jr., and K. R. Czarnecki. February 1958. 31p. diagrs., photos. (NACA TN 4183)

BOUNDARY-LAYER TRANSITION ON AN OPEN-NOSE CONE AT MACH 3.1. Paul F. Brinich. February 1958. 11p. diagrs. (NACA TN 4214)

EFFECT OF DISTRIBUTED GRANULAR-TYPE ROUGHNESS ON BOUNDARY-LAYER TRANSITION AT SUPERSONIC SPEEDS WITH AND WITHOUT SURFACE COOLING. Albert L. Braslow. March 1958. 22p. diagrs., photos. (NACA RM L58A17)

WALL PRESSURE FLUCTUATIONS IN A TURBULENT BOUNDARY LAYER. William W. Willmarth, California Institute of Technology. March 1958. 39p. diagrs., photo. (NACA TN 4139)

EFFECT OF WALL COOLING ON INLET PARAMETERS OF A SCOOP OPERATING IN A TURBULENT BOUNDARY LAYER ON A FLAT OR CONICAL SURFACE FOR MACH NUMBERS 2 TO 10. Andrew Beke. March 1958. 21p. diagrs., tabs. (NACA TN 4153)

SKIN-FRICTION MEASUREMENTS IN INCOMPRESSIBLE FLOW. Donald W. Smith and John H. Walker. March 1958. 67p. diagrs., photo., tabs. (NACA TN 4231)

TURBULENT SHEARING STRESS IN THE BOUNDARY LAYER OF YAWED FLAT PLATES. Harry Ashkenas, Cornell University. April 1958. 58p. diagrs., photos., tab. (NACA TN 4140)

OBSERVATIONS OF TURBULENT-BURST GEOMETRY AND GROWTH IN SUPERSONIC FLOW. Carlton S. James. April 1958. (i), 85p. diagrs., photos., tab. (NACA TN 4235)

EFFECTS OF MACH NUMBER AND WALL-TEMPERATURE RATIO ON TURBULENT HEAT TRANSFER AT MACH NUMBERS FROM 3 TO 5. Thorval Tendeland. April 1958. 46p. diagrs. (NACA TN 4236)

ANALYSIS OF TURBULENT FLOW AND HEAT TRANSFER ON A FLAT PLATE AT HIGH MACH NUMBERS WITH VARIABLE FLUID PROPERTIES. R. G. Deissler and A. L. Loeffler, Jr. April 1958. 61p. diagrs. (NACA TN 4262)

LOCAL ISOTROPY IN TURBULENT SHEAR FLOW. Stanley Corrsin, Johns Hopkins University. May 1958. 15p. diagr. (NACA RM 58B11)

SUMMARY OF EXPERIMENTAL HEAT-TRANSFER MEASUREMENTS IN TURBULENT FLOW FOR A MACH NUMBER RANGE FROM 0.87 TO 5.05. Maurice J. Brevoort and Barbara D. Arabian. May 1958. 43p. diagrs., photos., tab. (NACA TN 4248)

MEASUREMENT OF THE EFFECT OF AN AXIAL MAGNETIC FIELD ON THE REYNOLDS NUMBER OF TRANSITION IN MERCURY FLOWING THROUGH A GLASS TUBE. Michel Bader and William C. A. Carlson. May 1958. 8p. diagrs. (NACA TN 4274)

HEAT TRANSFER IN ISOTROPIC TURBULENCE DURING THE FINAL PERIOD OF DECAY. D. W. Dunn and W. H. Reid, Johns Hopkins University and Ballistic Research Laboratories, U. S. Army. June 1958. 68p. diagrs., tabs. (NACA TN 4186)

AN EXPERIMENTAL STUDY OF THE TURBULENT BOUNDARY LAYER ON A SHOCK-TUBE WALL. Paul B. Gooderum. June 1958. 63p. diagrs., photos., tab. (NACA TN 4243)

STATISTICAL STUDY OF TURBULENCE - SPECTRAL FUNCTIONS AND CORRELATION COEFFICIENTS. (Étude statistique de la turbulence. Fonctions spectrales et coefficients de corrélation.) Francois N. Frenkiel. July 1958. 116p. diagrs., tabs. (NACA TM 1436. Translation of Office National d'Études et de Recherches Aéronautiques. Rapport Technique no. 34, 1948)

EFFECTS OF FABRICATION-TYPE ROUGHNESS ON TURBULENT SKIN FRICTION AT SUPERSONIC SPEEDS. K. R. Czarnecki, John R. Sevier, Jr., and Melvin M. Carmel. July 1958. 15p. diagrs. (NACA TN 4299)

EFFECT OF FAVORABLE PRESSURE GRADIENTS ON TRANSITION FOR SEVERAL BODIES OF REVOLUTION AT MACH 3.12. John R. Jack. July 1958. 28p. diagrs., photo. (NACA TN 4313)

AN ESTIMATE OF THE FLUCTUATING SURFACE PRESSURES ENCOUNTERED IN THE REENTRY OF A BALLISTIC MISSILE. Edmund E. Callaghan. July 1958. 18p. diagrs. (NACA TN 4315)

INFLUENCE OF SOLID-BODY ROTATION ON SCREEN-PRODUCED TURBULENCE. Stephen C. Traugott, Johns Hopkins University. August 1958. 100p. diagrs., photos. (NACA TN 4135)

TURBULENCE AND TEMPERATURE FLUCTUATIONS BEHIND A HEATED GRID. R. R. Mills, Jr., A. L. Kistler, V. O'Brien, and S. Corrsin, Johns Hopkins University. August 1958. 67p. diagrs. (NACA TN 4288)

THE TURBULENT BOUNDARY LAYER ON A ROUGH CURVILINEAR SURFACE. (Turbulentnyi rogranichnyi sloi na sherpokhovatoĭ krivolineinoĭ poverkhnosti.) V. F. Droblenkov. September 1958. 10p. diagrs. (NACA TM 1440. Translation from Akademiia Nauk SSSR, Izvestiia, Otdelenie Tekhnicheskikh Nauk, no. 8, 1955, p. 17-21)

AN ANALYTICAL STUDY OF TURBULENT AND MOLECULAR MIXING IN ROCKET COMBUSTION. David A. Bittker. September 1958. 22p. diagrs. (NACA TN 4321)

EFFECT OF SOME EXTERNAL CROSSWISE STIFFENERS ON THE HEAT TRANSFER AND PRESSURE DISTRIBUTION ON A FLAT PLATE AT MACH NUMBERS OF 0.77, 1.39, AND 1.98. Howard S. Carter. September 1958. 21p. diagrs., photo., tab. (NACA TN 4333)

SIMPLIFIED METHOD FOR DETERMINATION OF CRITICAL HEIGHT OF DISTRIBUTED ROUGHNESS PARTICLES FOR BOUNDARY-LAYER TRANSITION AT MACH NUMBERS FROM 0 TO 5. Albert L. Braslow and Eugene C. Knox. September 1958. 18p. diagrs., photos. (NACA TN 4363)

AN INVESTIGATION OF SUPERSONIC TURBULENT BOUNDARY LAYERS ON SLENDER BODIES OF REVOLUTION IN FREE FLIGHT BY USE OF A MACH-ZEHNDER INTERFEROMETER AND SHADOWGRAPHS. Alvin Seiff and Barbara J. Short. September 1958. 57p. diagrs., photos. (NACA TN 4364)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF TEMPERATURE RECOVERY FACTORS FOR FULLY DEVELOPED FLOW OF AIR IN A TUBE. R. G. Deissler, W. F. Weiland, and W. H. Lowdermilk. September 1958. 35p. diagrs., tab. (NACA TN 4376)

PRELIMINARY HEAT-TRANSFER STUDIES ON TWO BODIES OF REVOLUTION AT ANGLE OF ATTACK AT A MACH NUMBER OF 3.12. Norman Sands and John R. Jack. September 1958. 29p. diagrs., photos., tabs. (NACA TN 4378)

ANALYSIS OF TURBULENT FLOW AND HEAT TRANSFER IN NONCIRCULAR PASSAGES. Robert G. Deissler and Maynard F. Taylor. September 1958. 35p. diagrs. (NACA TN 4384)

(1.1.3.3) JET MIXING

INVESTIGATION AT MACH NUMBER 1.91 OF SIDE AND BASE PRESSURE DISTRIBUTIONS OVER CONICAL BOATTAILS WITHOUT AND WITH JET FLOW ISSUING FROM BASE. Edgar M. Cortright, Jr., and Albert H. Schroeder. September 1951. 59p. diagrs., photos. (NACA RM E51F26)

SPREADING OF EXHAUST JET FROM 16-INCH RAM JET AT MACH NUMBER 2.0. Fred Wilcox and Donald Pennington. August 1952. 14p. diagrs., photo., tab. (NACA RM E52F25)

SOME EFFECTS OF A SONIC JET EXHAUST ON THE LOADING OVER A YAWED FIN AT A MACH NUMBER OF 3.03. John E. Hatch, Jr., and William M. Savelle. January 1953. 12p. diagrs., photo. (NACA RM L52L02a)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

JET EFFECTS ON FLOW OVER AFTERBODIES IN SUPERSONIC STREAM. Edgar M. Cortright, Jr., and Fred D. Kochendorfer. November 1953. 31p. diagrs., photos. (NACA RM E53H25)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

TRANSONIC FLIGHT TEST OF A ROCKET-POWERED MODEL TO DETERMINE PROPULSIVE JET INFLUENCE ON THE CONFIGURATION DRAG. Carlos A. deMoraes. June 1954. 16p. diagrs., photo. (NACA RM L54D27)

EXPERIMENTAL DATA FOR FOUR FULL-SCALE CONICAL COOLING-AIR EJECTORS. C. C. Ciepluch and D. B. Fenn. November 1954. 41p. diagrs., photo., tab. (NACA RM E54F02)

PHOTOGRAPHIC INVESTIGATION OF AIR-FLOW PATTERNS IN TRANSPARENT ONE-SIXTH SECTOR OF ANNULAR TURBOJET-ENGINE COMBUSTOR WITH AXIAL-SLOT-TYPE AIR ADMISSION. Charles C. Graves and J. Dean Gernon. December 1954. 24p. diagrs., photos. (NACA RM E54I28a)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE EFFECT OF JET MACH NUMBER AND DIVERGENCE ANGLE OF THE NOZZLE UPON THE PRESSURE OF THE BASE ANNULUS OF A BODY OF REVOLUTION. August F. Bromm, Jr., and Robert M. O'Donnell. December 1954. 24p. diagrs., photos. (NACA RM L54I16)

JET EFFECTS ON LONGITUDINAL TRIM OF AN AIRPLANE CONFIGURATION MEASURED AT MACH NUMBERS BETWEEN 1.2 AND 1.8. Robert F. Peck. January 1955. 17p. diagrs., photos. (NACA RM L54J29a)

PRELIMINARY INVESTIGATION OF A TECHNIQUE OF PRODUCING A HEATED CORE IN A SUPERSONIC WIND-TUNNEL STREAM. Morris D. Rousso and Milton A. Beheim. February 1955. 22p. photos., diagrs. (NACA RM E54K02)

SOME STUDIES OF AXISYMMETRIC FREE JETS EXHAUSTING FROM SONIC AND SUPERSONIC NOZZLES INTO STILL AIR AND INTO SUPERSONIC STREAMS. Eugene S. Love and Carl E. Grigsby. May 1955. ii, 178p. diagrs., photos., tabs. (NACA RM L54L31)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF SIMULATED SONIC TURBOJET EXHAUST ON THE DRAG OF A BOATTAIL BODY WITH VARIOUS JET SIZES FROM MACH NUMBER 0.87 TO 1.50. Ralph A. Falanga. August 1955. 23p. diagrs., photos., tab. (NACA RM L55F09a)

FREE-FLIGHT TESTS TO DETERMINE THE POWER-ON AND POWER-OFF PRESSURE DISTRIBUTION AND DRAG OF THE NACA RM-10 RESEARCH VEHICLE AT LARGE REYNOLDS NUMBERS BETWEEN MACH NUMBERS 0.8 AND 3.0. Sherwood Hoffman. September 1955. 55p. diagrs., photos., 3 tabs. (NACA RM L55H02)

INITIAL INCLINATION OF THE MIXING BOUNDARY SEPARATING AN EXHAUSTING SUPERSONIC JET FROM A SUPERSONIC AMBIENT STREAM. Eugene S. Love. January 1956. 30p. diagrs. (NACA RM L55J14)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF A SONIC JET ON THE TOTAL-DRAG AND BASE-PRESSURE COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION FROM MACH NUMBER 0.83 TO 1.70. Ralph A. Falanga. March 1956. 18p. diagrs., photos., tab. (NACA RM L55L21)

JET EFFECTS ON BASE AND AFTERBODY PRESSURES OF A CYLINDRICAL AFTERBODY AT TRANSONIC SPEEDS. James M. Cubbage, Jr. May 1956. 50p. diagrs., photos. (NACA RM L56C21)

BOUNDARIES OF SUPERSONIC AXISYMMETRIC FREE JETS. Eugene S. Love, Mildred J. Woodling, and Louise P. Lee. October 1956. 98p. diagrs. (NACA RM L56G18)

FREE-FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF DRAG COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION WITH A SIMULATED TURBOJET EXHAUST ISSUING AT THE BASE FROM CONICAL SHORT-LENGTH EJECTORS. Ralph A. Falanga and Abraham Leiss. December 1956. 34p. diagrs., photos., tab. (NACA RM L56H23)

FAR NOISE FIELD OF AIR JETS AND JET ENGINES. Edmund E. Callaghan and Willard D. Coles. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1329. Supersedes TN 3590; TN 3591)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. Walton L. Howes, Edmund E. Callaghan, Willard D. Coles, and Harold R. Mull. Appendix B: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. 1957. ii, 35p. diagrs., photos., tab. (NACA Rept. 1338. Supersedes TN 3763 and TN 3764)

TURBULENCE MEASUREMENTS IN MULTIPLE INTERFERING AIR JETS. James C. Laurence and Jean M. Benninghoff. December 1957. 37p. diagrs., photos. (NACA TN 4029)

SHAPE OF INITIAL PORTION OF BOUNDARY OF SUPERSONIC AXISYMMETRIC FREE JETS AT LARGE JET PRESSURE RATIOS. Eugene S. Love and Louise P. Lee. January 1958. 29p. diagrs. (NACA TN 4195)

LIMITED INVESTIGATION OF NOISE SUPPRESSION BY INJECTION OF WATER INTO EXHAUST OF AFTERBURNING JET ENGINE. Max C. Kurbjun. February 1958. 15p. diagrs., photo. (NACA RM L57L05)

EFFECT OF JET TEMPERATURE ON JET-NOISE GENERATION. Vern G. Rollin. March 1958. 13p. diagrs., photo. (NACA TN 4217)

USE OF THE COANDA EFFECT FOR OBTAINING JET DEFLECTION AND LIFT WITH A SINGLE FLAT-PLATE DEFLECTION SURFACE. Uwe H. von Glahn. June 1958. 49p. diagrs., tabs. (NACA TN 4272)

TURBOJET ENGINE NOISE REDUCTION WITH MIXING NOZZLE-EJECTOR COMBINATIONS. Willard D. Coles, John A. Mihaloew, and Edmund E. Callaghan. August 1958. 33p. diagrs., photos., tab. (NACA TN 4317)

THEORY AND EXPERIMENTS ON SUPERSONIC AIR-TO-AIR EJECTORS. (Theorie et experimentation des ejecteurs supersoniques air-air.) J. Fabri and J. Paulon. September 1958. 30p. diagrs. (NACA TM 1410. Translation of Office National d'Etudes et de Recherches Aeronautiques. Note Technique no. 36, 1956)

EXPERIMENTAL INVESTIGATION OF AXIAL AND NORMAL FORCE CHARACTERISTICS OF SKEWED NOZZLES. David J. Carter, Jr., and Allen R. Vick. September 1958. 40p. diagrs., photos. (NACA TN 4336)

USE OF THE COANDA EFFECT FOR JET DEFLECTION AND VERTICAL LIFT WITH MULTIPLE-FLAT-PLATE AND CURVED-PLATE DEFLECTION SURFACES. Uwe H. von Glahn. APPENDIX B: ESTIMATED PERFORMANCE OF MULTIPLE-FLAT-PLATE DEFLECTORS. Thomas F. Gelder. September 1958. 54p. diagrs., photo., tabs. (NACA TN 4377)

EFFECTS OF GROUND PROXIMITY ON THE THRUST OF A SIMPLE DOWNWARD-DIRECTED JET BENEATH A FLAT SURFACE. Kenneth P. Spreemann and Irving R. Sherman. September 1958. 39p. diagrs., photos. (NACA TN 4407)

(1.1.4)
AERODYNAMICS WITH HEAT

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

FLIGHT MEASUREMENTS OF AVERAGE SKIN-FRICTION COEFFICIENTS ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.0 TO 3.7. J. Dan Loposer and Charles B. Rumsey. August 1954. 32p. diagrs., photos. (NACA RM L54G14)

SOME EFFECTS OF BLUNTNESS ON BOUNDARY-LAYER TRANSITION AND HEAT TRANSFER AT SUPERSONIC SPEEDS. W. E. Moeckel. 1957. ii, 14p. diagrs. (NACA Rept. 1312. Supersedes TN 3653)

STABILITY OF LAMINAR BOUNDARY LAYER NEAR A STAGNATION POINT OVER AN IMPERMEABLE WALL AND A WALL COOLED BY NORMAL FLUID INJECTION. Morris Morduchow, Richard G. Grape, and Richard P. Shaw, Polytechnic Institute of Brooklyn. August 1957. 56p. diagrs., tabs. (NACA TN 4037)

EXPLORATORY INVESTIGATION OF STAGNATION AND BASE-PRESSURE INCREASES RESULTING FROM COMBUSTION OF ALUMINUM BOROHYDRIDE ADJACENT TO BODY OF REVOLUTION IN SUPERSONIC WIND TUNNEL. John S. Serafini, Robert G. Borsch, and Edward A. Fletcher. October 1957. 49p. diagrs., photos., tabs. (NACA RM E57E15)

A COMPARATIVE ANALYSIS OF THE PERFORMANCE OF LONG-RANGE HYPERVELOCITY VEHICLES. Alfred J. Eggers, Jr., H. Julian Allen, and Stanford E. Neice. October 1957. (i), 66p. diagrs. (NACA TN 4046. Supersedes RM A54L10)

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. October 1957. 61p. diagrs. (NACA TN 4047. Supersedes RM A53D28)

EFFECTS OF EXTREME SURFACE COOLING ON BOUNDARY-LAYER TRANSITION. John R. Jack, Richard J. Wisniewski, and N. S. Diaconis. (Presented at Symposium on High-Speed Aerodynamics and Structures, Gainesville, Florida, January 22-24, 1957.) October 1957. 19p. diagrs., photo. (NACA TN 4094)

DEVELOPMENT OF A PISTON-COMPRESSOR TYPE LIGHT-GAS GUN FOR THE LAUNCHING OF FREE-FLIGHT MODELS AT HIGH VELOCITY. A. C. Charters, B. Pat Denardo, and Vernon J. Rossow. November 1957. (i), 95p. diagrs., photos., tabs. (NACA TN 4143. Supersedes RM A55G11)

EFFECT OF OXYGEN RECOMBINATION ON ONE-DIMENSIONAL FLOW AT HIGH MACH NUMBERS. Steve P. Heims. January 1958. 52p. diagrs. (NACA TN 4144)

PRANDTL-MEYER EXPANSION OF CHEMICALLY REACTING GASES IN LOCAL CHEMICAL AND THERMODYNAMIC EQUILIBRIUM. Steve P. Heims. March 1958. 17p. diagrs. (NACA TN 4230)

AN APPROXIMATE ANALYTICAL METHOD FOR STUDYING ENTRY INTO PLANETARY ATMOSPHERES. Dean R. Chapman. May 1958. (i), 101p. diagrs., tab. (NACA TN 4276)

TURBULENCE AND TEMPERATURE FLUCTUATIONS BEHIND A HEATED GRID. R. R. Mills, Jr., A. L. Kistler, V. O'Brien, and S. Corrsin, Johns Hopkins University. August 1958. 67p. diagrs. (NACA TN 4288)

NATURAL CONVECTION INSIDE A FLAT ROTATING CONTAINER. Simon Ostrach and Willis H. Braun. September 1958. 27p. diagrs. (NACA TN 4323)

(1.1.4.1) HEATING

MEASUREMENTS OF AERODYNAMIC HEATING OBTAINED DURING DEMONSTRATION FLIGHT TESTS OF THE DOUGLAS D-558-II AIRPLANE. Ira P. Jones, Jr. November 1952. 19p. diagrs., photo., tab. (NACA RM L52I26a)

TESTS OF AERODYNAMICALLY HEATED MULTI-WEB WING STRUCTURES IN A FREE JET AT MACH NUMBER 2. TWO ALUMINUM-ALLOY MODELS OF 20-INCH CHORD WITH 0.064- AND 0.081-INCH-THICK SKIN. George E. Griffith, Georgene H. Miltonberger, and Richard Rosecrans. August 1955. 39p. diagrs., photos., tabs. (NACA RM L55F13)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - PRELIMINARY TESTS ON TRANSPIRATION COOLING OF A FLAT PLATE AT M = 2.7 WITH AIR AS THE INJECTED GAS. Morris W. Rubesin, Constantine C. Pappas, and Arthur F. Okuno. December 1955. 37p. diagrs. (NACA RM A55I19)

THE INFLUENCE OF SURFACE INJECTION ON HEAT TRANSFER AND SKIN FRICTION ASSOCIATED WITH THE HIGH-SPEED TURBULENT BOUNDARY LAYER. Morris W. Rubesin. February 1956. 16p. diagrs. (NACA RM A55L13)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - THE EFFECT ON SKIN FRICTION OF AIR INJECTED INTO THE BOUNDARY LAYER OF A CONE AT M = 2.7. Thorval Tendeland and Arthur F. Okuno. June 1956. 23p. diagrs. (NACA RM A56D05)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. 1957. ii, 21p. diagrs., photos., tab. (NACA Rept. 1323. Supersedes TN 3706)

SOME EFFECTS OF HEAT TRANSFER AT MACH NUMBER 2.0 AT STAGNATION TEMPERATURES BETWEEN 2,310° AND 3,500° R ON A MAGNESIUM FIN WITH SEVERAL LEADING-EDGE MODIFICATIONS. William M. Bland, Jr., and Walter E. Bressette. April 1957. 29p. diagrs., photos., tab. (NACA RM L57C14)

FLIGHT MEASUREMENTS OF BOUNDARY-LAYER TEMPERATURE PROFILES ON A BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.2 TO 3.5. Andrew G. Swanson, James J. Buglia, and Leo T. Chauvin. July 1957. 40p. diagrs., photos. (NACA TN 4061)

THEORY OF AIRCRAFT STRUCTURAL MODELS SUBJECT TO AERODYNAMIC HEATING AND EXTERNAL LOADS. William J. O'Sullivan, Jr. September 1957. 48p. (NACA TN 4115)

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. October 1957. 61p. diagrs. (NACA TN 4047. Supersedes RM A53D28)

MOTION OF A BALLISTIC MISSILE ANGULARLY MISALINED WITH THE FLIGHT PATH UPON ENTERING THE ATMOSPHERE AND ITS EFFECT UPON AERODYNAMIC HEATING, AERODYNAMIC LOADS, AND MISS DISTANCE. H. Julian Allen. October 1957. 66p. diagrs., tabs. (NACA TN 4048. Supersedes RM A56F15)

THE USEFUL HEAT CAPACITY OF SEVERAL MATERIALS FOR BALLISTIC NOSE-CONE CONSTRUCTION. Jackson R. Stalder. November 1957. 19p. diagrs. (NACA TN 4141)

APPROXIMATE CALCULATION OF THE COMPRESSIBLE TURBULENT BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Eli Reshotko and Maurice Tucker. December 1957. 34p. diagrs. (NACA TN 4154)

EFFECTIVENESS OF VARIOUS PROTECTIVE COVERINGS ON MAGNESIUM FINS AT MACH NUMBER 2.0 AND STAGNATION TEMPERATURES UP TO 3,600° R. William M. Bland, Jr. January 1958. 48p. diagrs., photos., tab. (NACA RM L57J17)

A COMPARISON OF TWO METHODS FOR CALCULATING TRANSIENT TEMPERATURES FOR THICK WALLS. James J. Buglia and Helen Brinkworth. August 1958. 19p. diagrs., tab. (NACA TN 4343)

A MACH 4 ROCKET-POWERED SUPERSONIC TUNNEL USING AMMONIA-OXYGEN AS WORKING FLUID. Robert W. Graham, Eleanor Costilow Guentert, and Vearl N. Huff. September 1958. 53p. diagrs., photos. (NACA TN 4325)

HEAT TRANSFER AND THERMAL STRESSES IN SANDWICH PANELS. Robert T. Swann. September 1958. 34p. diagrs., tabs. (NACA TN 4349)

TABLES AND GRAPHS OF NORMAL-SHOCK PARAMETERS AT HYPERSONIC MACH NUMBERS AND SELECTED ALTITUDES. Paul W. Huber. September 1958. 26p. diagrs., tabs (NACA TN 4352)

(1.1.4.2)
HEAT TRANSFER

NACA INVESTIGATIONS OF ICING-PROTECTION SYSTEMS FOR TURBOJET-ENGINE INSTALLATIONS. Uwe von Glahn, Edmund E. Callaghan, and Vernon H. Gray. May 2, 1951. (ii), 83p. diagrs., photos. (NACA RM E51B12)

INVESTIGATION OF WATER-SPRAY COOLING OF TURBINE BLADES IN A TURBOJET ENGINE. John C. Freche and William J. Steiptlug. March 1953. 45p. diagrs., photos., tab. (NACA RM E53A23)

EXPLORATORY INVESTIGATION OF TRANSPIRATION COOLING TO ALLEVIATE AERODYNAMIC HEATING ON AN 8° CONE IN A FREE JET AT A MACH NUMBER OF 2.05. William J. O'Sullivan, Leo T. Chauvin, and Charles B. Rumsey. September 1953. 26p. diagrs., photos. (NACA RM L53H06)

EXPERIMENTAL INVESTIGATION OF SEVERAL WATER-INJECTION CONFIGURATIONS FOR TURBINE-BLADE SPRAY COOLING IN A TURBOJET ENGINE. John C. Freche and Roy A. McKinnon. October 1953. 37p. photos., diagrs., tabs. (NACA RM E53H06)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

COOLING CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER WITH A POROUS WALL OF BRAZED AND ROLLED WIRE CLOTH. William K. Koffel. August 1954. 68p. diagrs., photos., tabs. (NACA RM E54E25)

INVESTIGATION OF POROUS GAS-HEATED LEADING-EDGE SECTION FOR ICING PROTECTION OF A DELTA WING. Dean T. Bowden. January 1955. 54p. diagrs., photos., tab. (NACA RM E54I03)

EXPLORATORY TESTS OF TRANSPIRATION COOLING OF A POROUS 8° CONE AT M = 2.05 USING NITROGEN GAS, HELIUM GAS, AND WATER AS THE COOLANTS. Leo T. Chauvin and Howard S. Carter. June 1955. 22p. diagrs., photos., tab. (NACA RM L55C29)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - PRELIMINARY TESTS ON TRANSPIRATION COOLING OF A FLAT PLATE AT M = 2.7 WITH AIR AS THE INJECTED GAS. Morris W. Rubesin, Constantine C. Pappas, and Arthur F. Okuno. December 1955. 37p. diagrs. (NACA RM A55I19)

THE INFLUENCE OF SURFACE INJECTION ON HEAT TRANSFER AND SKIN FRICTION ASSOCIATED WITH THE HIGH-SPEED TURBULENT BOUNDARY LAYER. Morris W. Rubesin. February 1956. 16p. diagrs. (NACA RM A55L13)

EFFECT OF MACH NUMBER ON BOUNDARY-LAYER TRANSITION IN THE PRESENCE OF PRESSURE RISE AND SURFACE ROUGHNESS ON AN OGIVE-CYLINDER BODY WITH COLD WALL CONDITIONS. Robert J. Carros. April 1956. 30p. diagrs., photos. (NACA RM A56B15)

HEAT REQUIREMENTS FOR ICE PROTECTION OF A CYCLICALLY GAS-HEATED, 36° SWEPT AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT. Vernon H. Gray and Uwe H. von Glahn. May 1956. 73p. diagrs., photos., tabs. (NACA RM E56B23)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - THE EFFECT ON SKIN FRICTION OF AIR INJECTED INTO THE BOUNDARY LAYER OF A CONE AT M = 2.7. Thorval Tendeland and Arthur F. Okuno. June 1956. 23p. diagrs. (NACA RM A56D05)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. 1957. ii, 21p. diagrs., photos., tab. (NACA Rept. 1323. Supersedes TN 3706)

AVERAGE PROPERTIES OF COMPRESSIBLE LAMINAR BOUNDARY LAYER ON FLAT PLATE WITH UNSTEADY FLIGHT VELOCITY. Franklin K. Moore and Simon Ostrach. 1957. iii, 12p. diagrs., tabs. (NACA Rept. 1325. Supersedes TN 3886)

SOME EFFECTS OF HEAT TRANSFER AT MACH NUMBER 2.0 AT STAGNATION TEMPERATURES BETWEEN 2,310° AND 3,500° R ON A MAGNESIUM FIN WITH SEVERAL LEADING-EDGE MODIFICATIONS. William M. Bland, Jr., and Walter E. Bressette. April 1957. 29p. diagrs., photos., tab. (NACA RM L57C14)

FLIGHT MEASUREMENTS OF BOUNDARY-LAYER TEMPERATURE PROFILES ON A BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.2 TO 3.5. Andrew G. Swanson, James J. Buglia, and Leo T. Chauvin. July 1957. 40p. diagrs., photos. (NACA TN 4061)

INFLUENCE OF TURBULENCE ON TRANSFER OF HEAT FROM CYLINDERS. J. Kestin and P. F. Maeder, Brown University. October 1957. 78p. diagrs., tabs. (NACA TN 4018)

EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR A TURBULENT BOUNDARY LAYER IN SUBSONIC FLOW USING AIR AS A COOLANT. William E. Brunk. October 1957. 35p. diagrs. (NACA TN 4091)

INVESTIGATION OF HEAT TRANSFER FROM A STATIONARY AND ROTATING CONICAL FOREBODY. Robert S. Ruggeri and James P. Lewis October 1957. 30p. diagrs., photo., tab. (NACA TN 4093)

EFFECTS OF EXTREME SURFACE COOLING ON BOUNDARY-LAYER TRANSITION. John R. Jack, Richard J. Wisniewski, and N. S. Diaconis. (Presented at Symposium on High-Speed Aerodynamics and Structures, Gainesville, Florida, January 22-24, 1957.) October 1957. 19p. diagrs., photo. (NACA TN 4094)

HEAT TRANSFER AND BOUNDARY-LAYER TRANSITION ON TWO BLUNT BODIES AT MACH NUMBER 3.12. N. S. Diaconis, Richard J. Wisniewski, and John R. Jack. October 1957. 31p. diagrs., photo. (NACA TN 4099)

THEORY AND APPARATUS FOR MEASUREMENT OF EMISSIVITY FOR RADIATIVE COOLING OF HYPERSONIC AIRCRAFT WITH DATA FOR INCONEL AND INCONEL X. William J. O'Sullivan, Jr., and William R. Wade. October 1957. ii, 43p. diagrs., photos. (NACA TN 4121)

HEAT TRANSFER AND RECOVERY TEMPERATURES ON A SPHERE WITH LAMINAR, TRANSITIONAL, AND TURBULENT BOUNDARY LAYERS AT MACH NUMBERS OF 2.00 AND 4.15. Ivan E. Beckwith and James J. Gallagher. December 1957. 59p. diagrs., photos. (NACA TN 4125)

EFFECTS OF LEADING-EDGE BLUNTING ON THE LOCAL HEAT TRANSFER AND PRESSURE DISTRIBUTIONS OVER FLAT PLATES IN SUPERSONIC FLOW. Marcus O. Creager. December 1957. 54p. diagrs., tabs. (NACA TN 4142)

LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT ANGLE OF ATTACK IN A SUPERSONIC STREAM. Eli Reshotko. December 1957. (i), 64p. diagrs., tabs. (NACA TN 4152)

ON FLOW OF ELECTRICALLY CONDUCTING FLUIDS OVER A FLAT PLATE IN THE PRESENCE OF A TRANSVERSE MAGNETIC FIELD. Vernon J. Rossow. 1958. ii, 20p. diagrs., tabs. (NACA Rept. 1358. Supersedes TN 3971)

EFFECTIVENESS OF VARIOUS PROTECTIVE COVERINGS ON MAGNESIUM FINS AT MACH NUMBER 2.0 AND STAGNATION TEMPERATURES UP TO 3,600° R. William M. Bland, Jr. January 1958. 48p. diagrs., photos., tab. (NACA RM L57J17)

EVAPORATION, HEAT TRANSFER, AND VELOCITY DISTRIBUTION IN TWO-DIMENSIONAL AND ROTATIONALLY SYMMETRICAL LAMINAR BOUNDARY-LAYER FLOW. (Verdunstung, Warmeubergang und Geschwindigkeitsverteilung bei zweidimensionaler und rotationssymmetrischer laminarer Grenzschichtstromung.) Nils Frossling. February 1958. 37p. tabs. (NACA TM 1432. Translation from Lunds Universitets Arsskrift, v. 36, no. 4. Kungl. Fysiografiska Sallskapets Handlingar, v. 51, no. 4, 1940)

AN ANALYSIS OF THE TURBULENT BOUNDARY-LAYER CHARACTERISTICS ON A FLAT PLATE WITH DISTRIBUTED LIGHT-GAS INJECTION. Morris W. Rubesin and Constantine C. Pappas. February 1958. 43p. diagrs. (NACA TN 4149)

RECOVERY TEMPERATURES AND HEAT TRANSFER NEAR TWO-DIMENSIONAL ROUGHNESS ELEMENTS AT MACH 3.1. Paul F. Brinich. February 1958. 20p. diagrs. (NACA TN 4213)

CORRELATION OF TURBULENT HEAT TRANSFER IN A TUBE FOR THE DISSOCIATING SYSTEM $N_2O_4 \rightleftarrows 2NO_2$. Richard S. Brokaw. March 1958. 17p. diagrs., tabs. (NACA RM E57K19a)

EFFECT OF DISTRIBUTED GRANULAR-TYPE ROUGHNESS ON BOUNDARY-LAYER TRANSITION AT SUPERSONIC SPEEDS WITH AND WITHOUT SURFACE COOLING. Albert L. Braslow. March 1958. 22p. diagrs., photos. (NACA RM L58A17)

APPROXIMATIONS FOR THE THERMODYNAMIC AND TRANSPORT PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen. March 1958. 67p. diagrs., tabs. (NACA TN 4150)

EFFECT OF WALL COOLING ON INLET PARAMETERS OF A SCOOP OPERATING IN A TURBULENT BOUNDARY LAYER ON A FLAT OR CONICAL SURFACE FOR MACH NUMBERS 2 TO 10. Andrew Beke. March 1958. 21p. diagrs., tabs. (NACA TN 4153)

FREE CONVECTION UNDER THE CONDITIONS OF THE INTERNAL PROBLEM. (Svobodnaya convectzia v ousloviakh vnoutrennei zadachi.) G. A. Ostroumov. April 1958. vii, 233p. diagrs., photos., tabs. (NACA TM 1407. Translation of Russian Book, 1952)

STAGNATION-POINT HEAT TRANSFER TO BLUNT SHAPES IN HYPERSONIC FLIGHT, INCLUDING EFFECTS OF YAW. A. J. Eggers, Jr., C. Frederick Hansen, and Bernard E. Cunningham. April 1958. 54p. diagr. (NACA TN 4229)

EFFECTS OF MACH NUMBER AND WALL-TEMPERATURE RATIO ON TURBULENT HEAT TRANSFER AT MACH NUMBERS FROM 3 TO 5. Thorval Tendeland. April 1958. 46p. diagrs. (NACA TN 4236)

ANALYSIS OF TURBULENT FLOW AND HEAT TRANSFER ON A FLAT PLATE AT HIGH MACH NUMBERS WITH VARIABLE FLUID PROPERTIES. R. G. Deissler and A. L. Loeffler, Jr. April 1958. 61p. diagrs. (NACA TN 4262)

SUMMARY OF EXPERIMENTAL HEAT-TRANSFER MEASUREMENTS IN TURBULENT FLOW FOR A MACH NUMBER RANGE FROM 0.87 TO 5.05. Maurice J. Brevoort and Barbara D. Arabian. May 1958. 43p. diagrs., photos., tab. (NACA TN 4248)

HEAT TRANSFER IN ISOTROPIC TURBULENCE DURING THE FINAL PERIOD OF DECAY. D. W. Dunn and W. H. Reid, Johns Hopkins University and Ballistic Research Laboratories, U. S. Army. June 1958. 68p. diagrs., tabs. (NACA TN 4186)

ON PAIRS OF SOLUTIONS OF A CLASS OF INTERNAL VISCOUS FLOW PROBLEMS WITH BODY FORCES. Simon Ostrach and Lynn U. Albers. June 1958. 21p. diagrs., tabs. (NACA TN 4273)

PRANDTL NUMBER EFFECTS ON UNSTEADY FORCED-CONVECTION HEAT TRANSFER. E. M. Sparrow and J. L. Gregg. June 1958. 14p. diagrs., tab. (NACA TN 4311)

HEAT-TRANSFER AND PRESSURE MEASUREMENTS ON FLAT-FACED CYLINDERS AT A MACH NUMBER OF 2. William E. Stoney, Jr., and J. Thomas Markley. July 1958. 38p. diagrs., photos., tab. (NACA TN 4300)

EFFECTS OF BOUNDARY-LAYER DISPLACEMENT AND LEADING-EDGE BLUNTNESS ON PRESSURE DISTRIBUTION, SKIN FRICTION, AND HEAT TRANSFER OF BODIES AT HYPERSONIC SPEEDS. Mitchel H. Bertram and Arthur Henderson, Jr. July 1958. 33p. diagrs. (NACA TN 4301)

A REVIEW OF THE THERMODYNAMIC, TRANSPORT, AND CHEMICAL REACTION RATE PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen and Steve P. Heims. July 1958. 33p. diagrs. (NACA TN 4359)

COMPRESSIBLE LAMINAR FLOW AND HEAT TRANSFER ABOUT A ROTATING ISOTHERMAL DISK. Simon Ostrach and Philip R. Thornton. August 1958. 18p. diagrs., tab. (NACA TN 4320)

MEASUREMENTS IN A SHOCK TUBE OF HEAT-TRANSFER RATES AT THE STAGNATION POINT OF A 1.0-INCH-DIAMETER SPHERE FOR REAL-GAS TEMPERATURES UP TO 7,900° R. Alexander P. Sabol. August 1958. 15p. diagrs., photos., tab. (NACA TN 4354)

THE EFFECT OF FREE-STREAM TURBULENCE ON HEAT TRANSFER FROM A FLAT PLATE. (Shuryūbu midare ga heiban nets udentatsu ni oyobosu likyō ni tsuite.) Sugao Sugawara, Takashi Sato, Hiroyasu Komatsu, and Hiroichi Osaka. September 1958. 21p. diagrs. (NACA TM 1441. Translation from Journal of Japan Society of Mechanical Engineering, v. 19, no. 18, 1953, p. 18-25)

TRANSIENT TEMPERATURE DISTRIBUTION IN A TWO-COMPONENT SEMI-INFINITE COMPOSITE SLAB OF ARBITRARY MATERIALS SUBJECTED TO AERODYNAMIC HEATING WITH A DISCONTINUOUS CHANGE IN EQUILIBRIUM TEMPERATURE OR HEAT-TRANSFER COEFFICIENT. Robert L. Trimpi and Robert A. Jones. September 1958. 83p. diagrs., tabs. (NACA TN 4308)

ON FULLY DEVELOPED CHANNEL FLOWS: SOME SOLUTIONS AND LIMITATIONS, AND EFFECTS OF COMPRESSIBILITY, VARIABLE PROPERTIES, AND BODY FORCES. Stephen H. Maslen. September 1958. 46p. diagrs., tabs. (NACA TN 4319)

A MACH 4 ROCKET-POWERED SUPERSONIC TUNNEL USING AMMONIA-OXYGEN AS WORKING FLUID. Robert W. Graham, Eleanor Costilow Guentert, and Vearl N. Huff. September 1958. 53p. diagrs., photos. (NACA TN 4325)

EFFECT OF SOME EXTERNAL CROSSWISE STIFFENERS ON THE HEAT TRANSFER AND PRESSURE DISTRIBUTION ON A FLAT PLATE AT MACH NUMBERS OF 0.77, 1.39, AND 1.98. Howard S. Carter. September 1958. 21p. diagrs., photo., tab. (NACA TN 4333)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE BOUNDARY LAYER ON A YAWED CYLINDER WITH TRANSPIRATION COOLING. Ivan E. Beckwith. September 1958. 72p. diagrs., tabs. (NACA TN 4345)

A NONLINEAR THEORY FOR PREDICTING THE EFFECTS OF UNSTEADY LAMINAR, TURBULENT, OR TRANSITIONAL BOUNDARY LAYERS ON THE ATTENUATION OF SHOCK WAVES IN A SHOCK TUBE WITH EXPERIMENTAL COMPARISON. Robert L. Trimpi and Nathaniel B. Cohen. September 1958. 105p. diagrs., photos., tab. (NACA TN 4347)

AN INVESTIGATION OF SUPERSONIC TURBULENT BOUNDARY LAYERS ON SLENDER BODIES OF REVOLUTION IN FREE FLIGHT BY USE OF A MACH-ZEHNDER INTERFEROMETER AND SHADOWGRAPHS. Alvin Seiff and Barbara J. Short. September 1958. 57p. diagrs., photos. (NACA TN 4364)

SLIP-FLOW HEAT TRANSFER FROM CYLINDERS IN SUBSONIC AIRSTREAMS. Lionel V. Baldwin. September 1958. (i), 77p. diagrs., photos., tabs. (NACA TN 4369)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF TEMPERATURE RECOVERY FACTORS FOR FULLY DEVELOPED FLOW OF AIR IN A TUBE. R. G. Deissler, W. F. Weiland, and W. H. Lowdermilk. September 1958. 35p. diagrs., tab. (NACA TN 4376)

PRELIMINARY HEAT-TRANSFER STUDIES ON TWO BODIES OF REVOLUTION AT ANGLE OF ATTACK AT A MACH NUMBER OF 3.12. Norman Sands and John R. Jack. September 1958. 29p. diagrs., photos., tabs. (NACA TN 4378)

APPROXIMATE METHOD FOR CALCULATION OF LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT LARGE ANGLE OF ATTACK IN SUPERSONIC FLOW. William E. Brunk. September 1958. 26p. diagrs., tab. (NACA TN 4380)

INVESTIGATION OF BOILING BURNOUT AND FLOW STABILITY FOR WATER FLOWING IN TUBES. Warren H. Lowdermilk, Chester D. Lanzo, and Byron L. Siegel. September 1958. 51p. diagrs., tabs. (NACA TN 4382)

MASS TRANSFER COOLING NEAR THE STAGNATION POINT. Leonard Roberts. September 1958. 42p. diagrs. (NACA TN 4391)

A THEORETICAL STUDY OF STAGNATION-POINT ABLATION. Leonard Roberts. September 1958. 29p. diagrs. (NACA TN 4392)

(1.1.4.3)
ADDITIONS OF HEAT

COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Edward A. Fletcher, Robert G. Dorsch, and Melvin Gerstein. June 1955. 72p. diagrs., photos., tabs. (NACA RM E55D07a)

AN ANALYSIS OF RAM-JET-ENGINE TIME DELAY FOLLOWING A FUEL-FLOW DISTURBANCE. Fred A. Wilcox and Arthur R. Anderson. June 1955. 38p. diagrs., tabs. (NACA RM E55D22)

A PRELIMINARY INVESTIGATION OF STATIC-PRESSURE CHANGES ASSOCIATED WITH COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. August 1955. 12p. diagrs., photos. (NACA RM E55F07)

HIGH-TEMPERATURE OXIDATION AND IGNITION OF METALS. Paul R. Hill, David Adamson, Douglas H. Foland, and Walter E. Bressette. March 1956. 12p. diagrs. (NACA RM L55L23b)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. 1957. ii, 21p. diagrs., photos., tab. (NACA Rept. 1323. Supersedes TN 3706)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. 1957. iii, 19p. diagrs., tab. (NACA Rept. 1333. Supersedes TN 3278)

EXPLORATORY INVESTIGATION OF AERODYNAMIC EFFECTS OF EXTERNAL COMBUSTION OF ALUMINUM BOROHYDRIDE IN AIRSTREAM ADJACENT TO FLAT PLATE IN MACH 2.46 TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher July 1957. 91p. diagrs., photos., tabs. (NACA RM E57E16)

EXPLORATORY INVESTIGATION OF STATIC- AND BASE-PRESSURE INCREASES RESULTING FROM COMBUSTION OF ALUMINUM BOROHYDRIDE ADJACENT TO BODY OF REVOLUTION IN SUPERSONIC WIND TUNNEL. John S. Serafini, Robert G. Dorsch, and Edward A. Fletcher. October 1957. 49p. diagrs., photos., tabs. (NACA RM E57E15)

STUDY OF SOME BURNER CROSS-SECTION CHANGES THAT INCREASE SPACE-HEATING RATES. Donald R. Boldman and Perry L. Blackshear, Jr. November 1957. 38p. diagrs., photos., tab. (NACA TN 4162)

PRELIMINARY SURVEY OF PROPULSION USING CHEMICAL ENERGY STORED IN THE UPPER ATMOSPHERE. Lionel V. Baldwin and Perry L. Blackshear. Appendix D: HEAT TRANSFER AND FRICTION DRAG. James F. Schmidt. May 1958. 73p. diagrs., tabs. (NACA TN 4267)

A PERFORMANCE ANALYSIS OF METHODS FOR HANDLING EXCESS INLET FLOW AT SUPERSONIC SPEEDS. Donald P. Hearth and James F. Connors. May 1958. 26p. diagrs., tab. (NACA TN 4270)

PRANDTL NUMBER EFFECTS ON UNSTEADY FORCED-CONVECTION HEAT TRANSFER. E. M. Sparrow and J. L. Gregg. June 1958. 14p. diagrs., tab. (NACA TN 4311)

INVESTIGATION OF BOILING BURNOUT AND FLOW STABILITY FOR WATER FLOWING IN TUBES. Warren H. Lowdermilk, Chester D. Lanzo, and Byron L. Siegel. September 1958. 51p. diagrs., tabs. (NACA TN 4382)

AN ANALYSIS OF RAMJET ENGINES USING SUPERSONIC COMBUSTION. Richard J. Weber and John S. MacKay. September 1958. 49p. diagrs., tab. (NACA TN 4386)

(1.1.5)
FLOW OF RAREFIED GASES

APPROXIMATIONS FOR THE THERMODYNAMIC AND TRANSPORT PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen. March 1958. 67p. diagrs., tabs. (NACA TN 4150)

PRELIMINARY SURVEY OF PROPULSION USING CHEMICAL ENERGY STORED IN THE UPPER ATMOSPHERE. Lionel V. Baldwin and Perry L. Blackshear. Appendix D: HEAT TRANSFER AND FRICTION DRAG. James F. Schmidt. May 1958. 73p. diagrs., tabs. (NACA TN 4267)

A REVIEW OF THE THERMODYNAMIC, TRANSPORT, AND CHEMICAL REACTION RATE PROPERTIES OF HIGH-TEMPERATURE AIR. C. Frederick Hansen and Steve P. Heims. July 1958. 33p. diagrs. (NACA TN 4359)

(1.1.5.1)
SLIP FLOW

SLIP-FLOW HEAT TRANSFER FROM CYLINDERS IN SUBSONIC AIRSTREAMS. Lionel V. Baldwin. September 1958. (i), 77p. diagrs., photos., tabs. (NACA TN 4369)

(1.1.5.2)
FREE MOLECULE FLOW

LAG IN PRESSURE SYSTEMS AT EXTREMELY LOW PRESSURES. William T. Davis. September 1958. 16p. diagrs. (NACA TN 4334)

SLIP-FLOW HEAT TRANSFER FROM CYLINDERS IN SUBSONIC AIRSTREAMS. Lionel V. Baldwin. September 1958. (i), 77p. diagrs., photos., tabs. (NACA TN 4369)

(1.1.6)
TIME - DEPENDENT FLOW

EFFECTS OF THERMAL RELAXATION AND SPECIFIC-HEAT CHANGES ON MEASUREMENTS WITH A PNEUMATIC-PROBE PYROMETER. P. W. Kuhns. July 1957. (ii), 67p. diagrs., tabs. (NACA TN 4026)

EXPERIMENTAL INVESTIGATION OF ATTENUATION OF STRONG SHOCK WAVES IN A SHOCK TUBE WITH HYDROGEN AND HELIUM AS DRIVER GASES. Jim J. Jones. July 1957. 24p. diagrs., photo. (NACA TN 4072)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF GROUND PROXIMITY AND OF SPLIT FLAPS ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL OSCILLATING IN YAW. Byron M. Jaquet. September 1957. 32p. diagrs. photos., tab. (NACA TN 4119)

AN EXPERIMENTAL STUDY OF THE TURBULENT BOUNDARY LAYER ON A SHOCK-TUBE WALL. Paul B. Gooderum. June 1958. 63p. diagrs., photos., tab. (NACA TN 4243)

REFLECTION AND TRANSMISSION OF SOUND BY A SLOTTED WALL SEPARATING TWO MOVING FLUID STREAMS. Raymond L. Barger. June 1958. 14p. diagrs. (NACA TN 4295)

TRANSIENT TEMPERATURE DISTRIBUTION IN A TWO-COMPONENT SEMI-INFINITE COMPOSITE SLAB OF ARBITRARY MATERIALS SUBJECTED TO AERODYNAMIC HEATING WITH A DISCONTINUOUS CHANGE IN EQUILIBRIUM TEMPERATURE OR HEAT-TRANSFER COEFFICIENT. Robert L. Trimpi and Robert A. Jones. September 1958. 83p. diagrs., tabs. (NACA TN 4308)

A NONLINEAR THEORY FOR PREDICTING THE EFFECTS OF UNSTEADY LAMINAR, TURBULENT, OR TRANSITIONAL BOUNDARY LAYERS ON THE ATTENUATION OF SHOCK WAVES IN A SHOCK TUBE WITH EXPERIMENTAL COMPARISON. Robert L. Trimpi and Nathaniel B. Cohen. September 1958. 105p. diagrs., photos., tab. (NACA TN 4347)

(1.2)
Wings

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS AT HIGH SUPERSONIC MACH NUMBERS OF A FAMILY OF DELTA WINGS HAVING DOUBLE-WEDGE SECTIONS WITH THE MAXIMUM THICKNESS AT 0.18 CHORD. Mitchel H. Bertram and William D. McCauley. October 1954. 54p. diagrs., photos., tabs. (NACA RM L54G28)

(1.2.1)
WING SECTIONS

WING LOADS AND LOAD DISTRIBUTIONS THROUGHOUT THE LIFT RANGE OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1956. 191p. diagrs., photo., tabs. (NACA RM H56G13)

(1.2.1.1)
SECTION THEORY

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

THEORETICAL DETERMINATION OF LOW-DRAG SUPERCAVITATING HYDROFOILS AND THEIR TWO-DIMENSIONAL CHARACTERISTICS AT ZERO CAVITATION NUMBER. Virgil E. Johnson, Jr. September 1957. 29p. diagrs. (NACA RM L57G11a)

A RAPID METHOD FOR PREDICTING ATTACHED-SHOCK SHAPE. Eugene S. Love and Ronald H. Long. October 1957. 34p. diagrs., tab. (NACA TN 4167)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ARBITRARY ASPECT RATIO, SUPERCAVITATING HYDROFOILS OPERATING NEAR THE FREE WATER SURFACE. Virgil E. Johnson, Jr. December 1957. 94p. diagrs., photos. (NACA RM L57I16)

A REEXAMINATION OF THE USE OF SIMPLE CONCEPTS FOR PREDICTING THE SHAPE AND LOCATION OF DETACHED SHOCK WAVES. Eugene S. Love. December 1957. 53p. diagrs. (NACA TN 4170)

EFFECT OF ANGLE OF ATTACK AND THICKNESS ON AERODYNAMIC COEFFICIENTS OF A RIGID WING OSCILLATING AT VERY LOW FREQUENCIES IN TWO-DIMENSIONAL SUPERSONIC FLOW. Frank S. Malvestuto, Jr., and Julia M. Goodwin. January 1958. 65p. diagrs. (NACA TN 4069)

THEORETICAL PRESSURE DISTRIBUTIONS FOR SEVERAL RELATED NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter, Alberta Y. Alksne, and B. Jeanne Hyett. January 1958. (i), 52p. diagrs., tab. (NACA TN 4148)

ELLIPTIC FUNCTIONS AND INTEGRALS WITH REAL MODULUS IN FLUID MECHANICS. (Les Fonctions et Intégrales Elliptiques a Module Réel en Mécanique des Fluides). Robert Legendre. June 1958. 113p. diagrs. (NACA TM 1435. Translation of Office National d'Études et de Recherches Aéronautiques, Publication 71, 1954)

(1.2.1.2)
SECTION VARIABLES

TWO-DIMENSIONAL CHORDWISE LOAD DISTRIBUTIONS AT TRANSONIC SPEEDS. Walter F. Lindsey and Richard S. Dick. February 1952. 41p. diagrs., photos. (NACA RM L51I07)

WING PRESSURE DISTRIBUTIONS AT LOW LIFT FOR THE XF-92A DELTA-WING AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener. October 1954. 54p. diagrs., photos., tabs. (NACA RM H54H06)

INVESTIGATION OF THE EFFECTS OF AN AIRFOIL SECTION MODIFICATION ON THE AERODYNAMIC CHARACTERISTICS AT SUBSONIC AND SUPERSONIC SPEEDS OF A THIN SWEPT WING OF ASPECT RATIO 3 IN COMBINATION WITH A BODY. David Graham and William T. Evans. June 1955. 46p. diagrs., tabs. (NACA RM A55D11)

DATA FROM LARGE-SCALE LOW-SPEED TESTS OF AIRPLANE CONFIGURATIONS WITH A THIN 45° SWEPT WING INCORPORATING SEVERAL LEADING-EDGE CONTOUR MODIFICATIONS. William T. Evans. May 1956. 110p. diagrs., photo., tabs. (NACA RM A56B17)

(1.2.1.2.1)
Camber

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

THEORETICAL DETERMINATION OF LOW-DRAG SUPERCAVITATING HYDROFOILS AND THEIR TWO-DIMENSIONAL CHARACTERISTICS AT ZERO CAVITATION NUMBER. Virgil E. Johnson, Jr. September 1957. 29p. diagrs. (NACA RM L57G11a)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ARBITRARY ASPECT RATIO, SUPERCAVITATING HYDROFOILS OPERATING NEAR THE FREE WATER SURFACE. Virgil E. Johnson, Jr. December 1957. 94p. diagrs., photos. (NACA RM L57I16)

(1.2.1.2.2) Thickness

EFFECTS OF A SERIES OF INBOARD PLAN-FORM MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO 47° SWEPTBACK WINGS OF ASPECT RATIO 3.5, TAPER RATIO 0.2, AND DIFFERENT THICKNESS DISTRIBUTIONS AT MACH NUMBERS OF 1.61 AND 2.01. Morton Cooper and John R. Sevier, Jr. July 1953. 43p. diagrs., photos., tabs. (NACA RM L53E07a)

EFFECTS OF A SERIES OF INBOARD PLAN-FORM MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO UNSWEPT WINGS OF ASPECT RATIO 3.5, TAPER RATIO 0.2, AND DIFFERENT THICKNESS DISTRIBUTIONS AT MACH NUMBERS OF 1.61 AND 2.01. John R. Sevier, Jr. February 1954. 43p. diagrs., photos. (NACA RM L53K11)

EXPERIMENTAL INVESTIGATION OF INTERFERENCE EFFECTS OF LATERAL-SUPPORT STRUTS ON AFTERBODY PRESSURES AT MACH 1.9. John L. Klann and Ronald G. Huff. May 1956. 13p. diagrs., tab. (NACA RM E56C16)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING THICKNESS ON THE STATIC LONGITUDINAL AND LATERAL STABILITY OF UNSWEPT WINGS OF ASPECT RATIO 3 AT HIGH SUBSONIC SPEEDS. William C. Hayes, Jr., and Edward C. Polhamus. August 1956. 43p. diagrs., photos. (NACA RM L56E30a)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. September 1957. 59p. diagrs., tabs. (NACA TN 4039. Supersedes RM A54B08a)

EFFECT OF ANGLE OF ATTACK AND THICKNESS ON AERODYNAMIC COEFFICIENTS OF A RIGID WING OSCILLATING AT VERY LOW FREQUENCIES IN TWO-DIMENSIONAL SUPERSONIC FLOW. Frank S. Malvestuto, Jr., and Julia M. Goodwin. January 1958. 65p. diagrs. (NACA TN 4069)

THEORETICAL PRESSURE DISTRIBUTIONS FOR SEVERAL RELATED NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter, Alberta Y. Alksne, and B. Jeanne Hyett. January 1958. (i), 52p. diagrs., tab. (NACA TN 4148)

ORDINATES AND THEORETICAL PRESSURE-DISTRIBUTION DATA FOR NACA 6- AND 6A-SERIES AIRFOIL SECTIONS WITH THICKNESSES FROM 2 TO 21 AND FROM 2 TO 15 PERCENT CHORD, RESPECTIVELY. Elizabeth W. Patterson and Albert L. Braslow. September 1958. 99p. diagrs. (NACA TN 4322)

(1.2.1.2.3) Thickness Distribution

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

EFFECTS OF A SERIES OF INBOARD PLAN-FORM MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO 47° SWEPTBACK WINGS OF ASPECT RATIO 3.5, TAPER RATIO 0.2, AND DIFFERENT THICKNESS DISTRIBUTIONS AT MACH NUMBERS OF 1.61 AND 2.01. Morton Cooper and John R. Sevier, Jr. July 1953. 43p. diagrs., photos., tabs. (NACA RM L53E07a)

EFFECTS OF A SERIES OF INBOARD PLAN-FORM MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO UNSWEPT WINGS OF ASPECT RATIO 3.5, TAPER RATIO 0.2, AND DIFFERENT THICKNESS DISTRIBUTIONS AT MACH NUMBERS OF 1.61 AND 2.01. John R. Sevier, Jr. February 1954. 43p. diagrs., photos. (NACA RM L53K11)

FLOW AND FORCE CHARACTERISTICS OF 2-PERCENT-THICK AIRFOILS AT TRANSONIC SPEEDS. Walter F. Lindsey and Emma Jean Landrum. January 1955. 74p. diagrs., photos. (NACA RM L54I30)

INVESTIGATION OF UNSTEADY FLOW PAST FOUR NACA 6-PERCENT-THICK AIRFOIL SECTIONS. Charles L. Ladson and Walter F. Lindsey. July 1956. 17p. diagrs. (NACA RM L56E14)

COMPRESSIBILITY EFFECTS ON A HOVERING HELICOPTER ROTOR HAVING AN NACA 0018 ROOT AIRFOIL TAPERING TO AN NACA 0012 TIP AIRFOIL. Robert D. Powell, Jr. September 1957. 25p. diagrs. (NACA RM L57F26)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. September 1957. 59p. diagrs., tabs. (NACA TN 4039. Supersedes RM A54B08a)

STAGNATION-POINT HEAT TRANSFER TO BLUNT SHAPES IN HYPERSONIC FLIGHT, INCLUDING EFFECTS OF YAW. A. J. Eggers, Jr., C. Frederick Hansen, and Bernard E. Cunningham. April 1958. 54p. diagr. (NACA TN 4229)

LOW TIP MACH NUMBER STALL CHARACTERISTICS AND HIGH TIP MACH NUMBER COMPRESSIBILITY EFFECTS ON A HELICOPTER ROTOR HAVING AN NACA 0009 TIP AIRFOIL SECTION. Robert D. Powell, Jr., and Paul J. Carpenter. July 1958. 28p. diagrs. (NACA TN 4355)

ORDINATES AND THEORETICAL PRESSURE-DISTRIBUTION DATA FOR NACA 6- AND 6A-SERIES AIRFOIL SECTIONS WITH THICKNESSES FROM 2 TO 21 AND FROM 2 TO 15 PERCENT CHORD, RESPECTIVELY. Elizabeth W. Patterson and Albert L. Braslow. September 1958. 99p. diagrs. (NACA TN 4322)

EFFECTS OF COMPRESSIBILITY ON ROTOR HOVERING PERFORMANCE AND SYNTHESIZED BLADE-SECTION CHARACTERISTICS DERIVED FROM MEASURED ROTOR PERFORMANCE OF BLADES HAVING NACA 0015 AIRFOIL TIP SECTIONS. James P. Shivers and Paul J. Carpenter. September 1958. 28p. diagrs. (NACA TN 4356)

(1.2.1.2.5) Surface Conditions

MEASUREMENTS OF AERODYNAMIC HEATING OBTAINED DURING DEMONSTRATION FLIGHT TESTS OF THE DOUGLAS D-558-II AIRPLANE. Ira P. Jones, Jr. November 1952. 19p. diagrs., photo., tab. (NACA RM L52I26a)

IMPINGEMENT OF CLOUD DROPLETS ON 36.5-PERCENT-THICK JOUKOWSKI AIRFOIL AT ZERO ANGLE OF ATTACK AND DISCUSSION OF USE AS CLOUD MEASURING INSTRUMENT IN DYE-TRACER TECHNIQUE. R. J. Brun and Dorothea E. Vogt. September 1957. 52p. diagrs., tabs. (NACA TN 4035)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. September 1957. 59p. diagrs., tabs. (NACA TN 4039. Supersedes RM A54B08a)

A THERMAL SYSTEM FOR CONTINUOUS MONITORING OF LAMINAR AND TURBULENT BOUNDARY-LAYER FLOWS DURING ROUTINE FLIGHT. Norman R. Richardson and Elmer A. Horton. September 1957. 25p. diagrs., photos. (NACA TN 4108)

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. 1958. ii, 16p. diagrs., photos. (NACA Rept. 1349. Supersedes TN 3858)

CORRELATIONS AMONG ICE MEASUREMENTS, IMPINGEMENT RATES, ICING CONDITIONS, AND DRAG COEFFICIENTS FOR UNSWEPT NACA 65A004 AIRFOIL. Vernon H. Gray. February 1958. 45p. diagrs., photos., tabs. (NACA TN 4151)

AERODYNAMIC EFFECTS CAUSED BY ICING OF AN UNSWEPT NACA 65A004 AIRFOIL. Vernon H. Gray and Uwe H. von Glahn. February 1958. 47p. diagrs., photos., tabs. (NACA TN 4155)

THE TURBULENT BOUNDARY LAYER ON A ROUGH CURVILINEAR SURFACE. (Turbulentnyi rogranichnyi sloĭ na sherpokhovatoĭ krivolineinoĭ poverkhnosti.) V. F. Droblenkov. September 1958. 10p. diagrs. (NACA TM 1440. Translation from Akademiia Nauk SSSR, Izvestiia, Otdelenie Tekhnicheskikh Nauk, no. 8, 1955, p. 17-21)

SIMPLIFIED METHOD FOR DETERMINATION OF CRITICAL HEIGHT OF DISTRIBUTED ROUGHNESS PARTICLES FOR BOUNDARY-LAYER TRANSITION AT MACH NUMBERS FROM 0 TO 5. Albert L. Braslow and Eugene C. Knox. September 1958. 18p. diagrs., photos. (NACA TN 4363)

(1.2.1.3) DESIGNATED PROFILES

A STUDY OF LOCAL-PRESSURE FLUCTUATIONS RELATIVE TO STATIC-PRESSURE DISTRIBUTIONS OF TWO-DIMENSIONAL AIRFOILS AT HIGH SUBSONIC MACH NUMBERS. Charles F. Coe. December 1955. 66p. diagrs., photos. (NACA RM A55J11)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. September 1957. 59p. diagrs., tabs. (NACA TN 4039. Supersedes RM A54B08a)

ORDINATES AND THEORETICAL PRESSURE-DISTRIBUTION DATA FOR NACA 6- AND 6A-SERIES AIRFOIL SECTIONS WITH THICKNESSES FROM 2 TO 21 AND FROM 2 TO 15 PERCENT CHORD, RESPECTIVELY. Elizabeth W. Patterson and Albert L. Braslow. September 1958. 99p. diagrs. (NACA TN 4322)

(1.2.1.4) HIGH-LIFT DEVICES

ANALYSIS OF SOME PARAMETERS USED IN CORRELATING BLOWING-TYPE BOUNDARY-LAYER CONTROL DATA. Mark W. Kelly. September 1956. 19p. diagrs. (NACA RM A56F12)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. July 1957. 31p. diagrs., tab. (NACA TN 4040. Supersedes RM A55D07)

PRELIMINARY INVESTIGATION OF THE CHARACTERISTICS OF A TWO-DIMENSIONAL WING AND PROPELLER WITH THE PROPELLER PLANE OF ROTATION IN THE WING-CHORD PLANE. David H. Hickey. August 1957. 12p. diagrs. (NACA RM A57F03)

(1.2.1.4.1) Plain Flaps

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

THE EFFECTS OF BLOWING OVER VARIOUS TRAILING-EDGE FLAPS ON AN NACA 0006 AIRFOIL SECTION, COMPARISONS WITH VARIOUS TYPES OF FLAPS ON OTHER AIRFOIL SECTIONS, AND AN ANALYSIS OF FLOW AND POWER RELATIONSHIPS FOR BLOWING SYSTEMS. Jules B. Dods, Jr., and Earl C. Watson. June 1956. 145p. diagrs., photos., tab. (NACA RM A56C01)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. July 1957. 31p. diagrs., tab. (NACA TN 4040. Supersedes RM A55D07)

(1.2.1.4.2) Split Flaps

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. July 1957. 31p. diagrs., tab. (NACA TN 4040. Supersedes RM A55D07)

(1.2.1.4.3) Slotted Flaps

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

THE EFFECTS OF BLOWING OVER VARIOUS TRAILING-EDGE FLAPS ON AN NACA 0006 AIRFOIL SECTION, COMPARISONS WITH VARIOUS TYPES OF FLAPS ON OTHER AIRFOIL SECTIONS, AND AN ANALYSIS OF FLOW AND POWER RELATIONSHIPS FOR BLOWING SYSTEMS. Jules B. Dods, Jr., and Earl C. Watson. June 1956. 145p. diagrs., photos., tab. (NACA RM A56C01)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. July 1957. 31p. diagrs., tab. (NACA TN 4040. Supersedes RM A55D07)

(1.2.1.4.4) Leading-Edge Flaps

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Joseph Weil, Paul Comisarow, and Kenneth W. Goodson. October 17, 1947. 84p. diagrs., photos., tab. (NACA RM L7G28)

THE EFFECTS OF BLOWING OVER VARIOUS TRAILING-EDGE FLAPS ON AN NACA 0006 AIRFOIL SECTION, COMPARISONS WITH VARIOUS TYPES OF FLAPS ON OTHER AIRFOIL SECTIONS, AND AN ANALYSIS OF FLOW AND POWER RELATIONSHIPS FOR BLOWING SYSTEMS. Jules B. Dods, Jr., and Earl C. Watson. June 1956. 145p. diagrs., photos., tab. (NACA RM A56C01)

WING LOADS AND LOAD DISTRIBUTIONS THROUGHOUT THE LIFT RANGE OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1956. 191p. diagrs., photo., tabs. (NACA RM H56G13)

(1.2.1.4.5) Slots and Slats

EFFECTS OF LEADING-EDGE SLATS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION AT MACH NUMBERS OF 0.4 TO 1.03. Jack F. Runckel and Seymour Steinberg. August 1953. 50p. diagrs., photos. (NACA RM L53F23)

HEAT REQUIREMENTS FOR ICE PROTECTION OF A CYCLICALLY GAS-HEATED, 36° SWEPT AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT. Vernon H. Gray and Uwe H. von Glahn. May 1956. 73p. diagrs., photos., tabs. (NACA RM E56B23)

(1.2.1.5) CONTROLS

A METHOD FOR INCREASING THE EFFECTIVENESS OF STABILIZING SURFACES AT HIGH SUPERSONIC MACH NUMBERS. Charles H. McLellan. August 1954. 14p. diagrs. (NACA RM L54F21)

(1.2.1.5.1) Flap Type

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

AN INVESTIGATION AT MACH NUMBER 2.40 OF FLAP-TYPE CONTROLS EQUIPPED WITH OVERHANG NOSE BALANCES. James N. Mueller. November 1953. 95p. diagrs., photos., tab. (NACA RM L53I21)

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

(1.2.1.5.2) Spoilers

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

EFFECTS OF RIGID SPOILERS ON THE TWO-DIMENSIONAL FLUTTER DERIVATIVES OF AIRFOILS OSCILLATING IN PITCH AT HIGH SUBSONIC SPEEDS. James C. Monfort and John A. Wyss. December 1954. 33p. diagrs., photos., tabs. (NACA RM A54I22)

AERODYNAMIC LOADINGS ASSOCIATED WITH SWEPT AND UNSWEPT SPOILERS ON A FLAT PLATE AT MACH NUMBERS OF 1.61 AND 2.01. Douglas R. Lord and K. R. Czarnecki. March 1956. 174p. diagrs., photos., tabs. (NACA RM L55L12)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. February 1958. 52p. diagrs., photos. (NACA TN 4180. Supersedes RM L52L31)

(1.2.1.6) BOUNDARY LAYER

AN INVESTIGATION OF FOUR WINGS OF SQUARE PLAN FORM AT A MACH NUMBER OF 6.9 IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL. Charles H. McLellan, Mitchel H. Bertram, and John A. Moore. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1310. Supersedes RM L51D17)

VELOCITY AND FRICTION CHARACTERISTICS OF LAMINAR VISCOUS BOUNDARY-LAYER AND CHANNEL FLOW OVER SURFACES WITH EJECTION OR SUCTION. E. R. G. Eckert, Patrick L. Donoughe and Betty Jo Moore. December 1957. 57p. diagrs., tabs. (NACA TN 4102)

EFFECTS OF LEADING-EDGE BLUNTING ON THE LOCAL HEAT TRANSFER AND PRESSURE DISTRIBUTIONS OVER FLAT PLATES IN SUPERSONIC FLOW. Marcus O. Creager. December 1957. 54p. diagrs., tabs. (NACA TN 4142)

ON FLOW OF ELECTRICALLY CONDUCTING FLUIDS OVER A FLAT PLATE IN THE PRESENCE OF A TRANSVERSE MAGNETIC FIELD. Vernon J. Rossow. 1958. ii, 20p. diagrs., tabs. (NACA Rept. 1358. Supersedes TN 3971)

EFFECTS OF BOUNDARY-LAYER DISPLACEMENT AND LEADING-EDGE BLUNTNESS ON PRESSURE DISTRIBUTION, SKIN FRICTION, AND HEAT TRANSFER OF BODIES AT HYPERSONIC SPEEDS. Mitchel H. Bertram and Arthur Henderson, Jr. July 1958. 33p. diagrs. (NACA TN 4301)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY-LAYER FLOW OVER DEVELOPABLE SURFACES AND WITH PROPORTIONAL MAINSTREAM VELOCITY COMPONENTS. Arthur G. Hansen, Case Institute of Technology. September 1958. (ii), 79p. diagrs. (NACA TM 1437)

THE TURBULENT BOUNDARY LAYER ON A ROUGH CURVILINEAR SURFACE. (Turbulentnyi pogranichnyi sloi na sherpokhovatoĭ krivolineinoĭ poverkhnosti.) V. F. Droblenkov. September 1958. 10p. diagrs. (NACA TM 1440. Translation from Akademiia Nauk SSSR, Izvestiia, Otdelenie Tekhnicheskikh Nauk, no. 8, 1955, p. 17-21)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE BOUNDARY LAYER ON A YAWED CYLINDER WITH TRANSPIRATION COOLING. Ivan E. Beckwith, September 1958. 72p. diagrs., tabs. (NACA TN 4345)

SOME NUMERICAL SOLUTIONS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL LAMINAR INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Peggy L. Yohner and Arthur G. Hansen. September 1958. 76p. diagrs., tabs. (NACA TN 4370)

(1.2.1.6.1) Characteristics

A THERMAL SYSTEM FOR CONTINUOUS MONITORING OF LAMINAR AND TURBULENT BOUNDARY-LAYER FLOWS DURING ROUTINE FLIGHT. Norman R. Richardson and Elmer A. Horton. September 1957. 25p. diagrs., photos. (NACA TN 4108)

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. 1958. ii, 16p. diagrs., photos. (NACA Rept. 1349. Supersedes TN 3858)

(1.2.1.6.2) Control

THE EFFECTS OF BLOWING OVER VARIOUS TRAILING-EDGE FLAPS ON AN NACA 0006 AIRFOIL SECTION, COMPARISONS WITH VARIOUS TYPES OF FLAPS ON OTHER AIRFOIL SECTIONS, AND AN ANALYSIS OF FLOW AND POWER RELATIONSHIPS FOR BLOWING SYSTEMS. Jules B. Dods, Jr., and Earl C. Watson. June 1956. 145p. diagrs., photos., tab. (NACA RM A56C01)

ANALYSIS OF SOME PARAMETERS USED IN CORRELATING BLOWING-TYPE BOUNDARY-LAYER CONTROL DATA. Mark W. Kelly. September 1956. 19p. diagrs. (NACA RM A56F12)

BOUNDARY-LAYER STABILITY DIAGRAMS FOR ELECTRICALLY CONDUCTING FLUIDS IN THE PRESENCE OF A MAGNETIC FIELD. Vernon J. Rossow. August 1958. 32p. diagrs., tabs. (NACA TN 4282)

(1.2.1.7) REYNOLDS NUMBER EFFECTS

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. September 1957. 59p. diagrs., tabs. (NACA TN 4039. Supersedes RM A54B08a)

STUDY OF PRESSURE DISTRIBUTIONS ON SIMPLE SHARP-NOSED MODELS AT MACH NUMBERS FROM 16 TO 18 IN HELIUM FLOW. Wayne D. Erickson. October 1957. 42p. diagrs., photos. (NACA TN 4113)

EFFECT OF FLOW INCIDENCE AND REYNOLDS NUMBER ON LOW-SPEED AERODYNAMIC CHARACTERISTICS OF SEVERAL NONCIRCULAR CYLINDERS WITH APPLICATIONS TO DIRECTIONAL STABILITY AND SPINNING. Edward C. Polhamus. January 1958. 54p. diagrs., photo., tab. (NACA TN 4176)

BOUNDARY-LAYER DISPLACEMENT EFFECTS IN AIR AT MACH NUMBERS OF 6.8 AND 9.6. Mitchel H. Bertram. February 1958. 61p. diagrs., photos. (NACA TN 4133)

WALL PRESSURE FLUCTUATIONS IN A TURBULENT BOUNDARY LAYER. William W. Willmarth, California Institute of Technology. March 1958. 39p. diagrs., photo. (NACA TN 4139)

(1.2.1.8) MACH NUMBER EFFECTS

DRAG MEASUREMENTS IN FLIGHT ON THE 10-PERCENT-THICK AND 8-PERCENT-THICK WING X-1 AIRPLANES. John J. Gardner. November 19, 1948. 17p. diagrs., photo. (NACA RM L8K05)

TWO-DIMENSIONAL CHORDWISE LOAD DISTRIBUTIONS AT TRANSONIC SPEEDS. Walter F. Lindsey and Richard S. Dick. February 1952. 41p. diagrs., photos. (NACA RM L51I07)

FLOW AND FORCE CHARACTERISTICS OF 2-PERCENT-THICK AIRFOILS AT TRANSONIC SPEEDS. Walter F. Lindsey and Emma Jean Landrum. January 1955. 74p. diagrs., photos. (NACA RM L54I30)

PRELIMINARY FLIGHT-DETERMINED PRESSURE DISTRIBUTIONS OVER THE WING OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT SUBSONIC AND TRANSONIC MACH NUMBERS. Gareth H. Jordan and C. Kenneth Hutchins, Jr. April 1955. 34p. diagrs., photos., tabs. (NACA RM H55A10)

A STUDY OF LOCAL-PRESSURE FLUCTUATIONS RELATIVE TO STATIC-PRESSURE DISTRIBUTIONS OF TWO-DIMENSIONAL AIRFOILS AT HIGH SUBSONIC MACH NUMBERS. Charles F. Coe. December 1955. 66p. diagrs., photos. (NACA RM A55J11)

INVESTIGATION OF UNSTEADY FLOW PAST FOUR NACA 6-PERCENT-THICK AIRFOIL SECTIONS. Charles L. Ladson and Walter F. Lindsey. July 1956. 17p. diagrs. (NACA RM L56E14)

WING LOADS AND LOAD DISTRIBUTIONS THROUGHOUT THE LIFT RANGE OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1956. 191p. diagrs., photo., tabs. (NACA RM H56G13)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. September 1957. 59p. diagrs., tabs. (NACA TN 4039. Supersedes RM A54B08a)

STUDY OF PRESSURE DISTRIBUTIONS ON SIMPLE SHARP-NOSED MODELS AT MACH NUMBERS FROM 16 TO 18 IN HELIUM FLOW. Wayne D. Erickson. October 1957. 42p. diagrs., photos. (NACA TN 4113)

EFFECT OF ANGLE OF ATTACK AND THICKNESS ON AERODYNAMIC COEFFICIENTS OF A RIGID WING OSCILLATING AT VERY LOW FREQUENCIES IN TWO-DIMENSIONAL SUPERSONIC FLOW. Frank S. Malvestuto, Jr., and Julia M. Goodwin. January 1958. 65p. diagrs. (NACA TN 4069)

THEORETICAL PRESSURE DISTRIBUTIONS FOR SEVERAL RELATED NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter, Alberta Y. Alksne, and B. Jeanne Hyett. January 1958. (i), 52p. diagrs., tab. (NACA TN 4148)

BOUNDARY-LAYER DISPLACEMENT EFFECTS IN AIR AT MACH NUMBERS OF 6.8 AND 9.6. Mitchel H. Bertram. February 1958. 61p. diagrs., photos. (NACA TN 4133)

COMPILATION OF INFORMATION ON THE TRANSONIC ATTACHMENT OF FLOWS AT THE LEADING EDGES OF AIRFOILS. Walter F. Lindsey and Emma Jean Landrum. February 1958. 63p. diagrs., photos., tabs. (NACA TN 4204)

(1.2.1.9)
WAKE

AN INVESTIGATION AT MACH NUMBERS OF 1.62 AND 1.93 OF THE LIFT EFFECTIVENESS AND INTEGRATED DOWNWASH CHARACTERISTICS OF SEVERAL IN-LINE MISSILE CONFIGURATIONS HAVING EQUAL-SPAN WINGS AND TAILS. Carl E. Grigsby. April 1952. 75p. diagrs., tabs. (NACA RM L52A02)

AERODYNAMIC EFFECTS CAUSED BY ICING OF AN UNSWEPT NACA 65A004 AIRFOIL. Vernon H. Gray and Uwe H. von Glahn. February 1958. 47p. diagrs., photos., tabs. (NACA TN 4155)

(1.2.2)
COMPLETE WINGS

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF RECTANGULAR WING AND BODY COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. August 1952. 74p. diagrs., tabs. (NACA RM L52E26)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

A WIND-TUNNEL INVESTIGATION OF THE USE OF SPOILERS FOR OBTAINING STATIC LONGITUDINAL STABILITY OF A CANARD-MISSILE MODEL IN REVERSE FLIGHT. Herman S. Fletcher. June 1954. 15p. diagrs., tab. (NACA RM L54E05)

WING PRESSURE DISTRIBUTIONS OVER THE LIFT RANGE OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AT SUBSONIC AND TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1955. 135p. diagrs., photos., tabs. (NACA RM H55G07)

AN INVESTIGATION OF FOUR WINGS OF SQUARE PLAN FORM AT A MACH NUMBER OF 6.9 IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL. Charles H. McLellan, Mitchel H. Bertram, and John A. Moore. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1310. Supersedes RM L51D17)

EFFECT OF FREQUENCY OF SIDESLIPPING MOTION ON THE LATERAL STABILITY DERIVATIVES OF A TYPICAL DELTA-WING AIRPLANE. Jacob H. Lichtenstein and James L. Williams. September 1957. 46p. diagrs., photos., tabs. (NACA RM L57F07)

ELLIPTIC CONES ALONE AND WITH WINGS AT SUPERSONIC SPEEDS. Leland H. Jorgensen. October 1957. 55p. diagrs., photos. (NACA TN 4045)

(1.2.2.1)
WING THEORY

WING LOAD DISTRIBUTION ON A SWEPT-WING AIRPLANE IN FLIGHT AT MACH NUMBERS UP TO 1.11 AND COMPARISON WITH THEORY. L. Stewart Rolls and Frederick H. Matteson. April 1952. 73p. diagrs., photos., tabs. (NACA RM A52A31)

HINGE-MOMENT CHARACTERISTICS FOR SEVERAL TIP CONTROLS ON A 60° SWEPTBACK DELTA WING AT MACH NUMBER 1.61. K. R. Czarnecki and Douglas R. Lord. January 1953. 31p. diagrs., photos. (NACA RM L52K28)

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

EFFECT OF SOME SECTION MODIFICATIONS AND PROTUBERANCES ON THE ZERO-LIFT DRAG OF DELTA WINGS AT TRANSONIC AND SUPERSONIC SPEEDS. Carl A. Sandahl and William E. Stoney. February 1954. 43p. diagrs., photos., tabs. (NACA RM L53L24a)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

EFFECTS OF OVERHANG BALANCE ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT TRANSONIC AND SUPERSONIC SPEEDS. Lawrence D. Guy. September 1954. 48p. diagrs., photo. (NACA RM L54G12a)

THE ROLLING MOMENT DUE TO SIDESLIP OF SWEPT WINGS AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and William C. Sleeman, Jr. March 1955. 81p. diagrs., photos., tabs. (NACA RM L54L01)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF SWEEPBACK AND THICKNESS RATIO ON THE WING LOADS OF A WING-BODY COMBINATION OF ASPECT RATIO 4 AND TAPER RATIO 0.6. Robert J. Platt, Jr., and Joseph D. Brooks. April 1955. 44p. diagrs., photos., tab. (NACA RM L54L31b)

INVESTIGATION OF THE EFFECTS OF AN AIRFOIL SECTION MODIFICATION ON THE AERODYNAMIC CHARACTERISTICS AT SUBSONIC AND SUPERSONIC SPEEDS OF A THIN SWEPT WING OF ASPECT RATIO 3 IN COMBINATION WITH A BODY. David Graham and William T. Evans. June 1955. 46p. diagrs., tabs. (NACA RM A55D11)

A STUDY OF CONICAL CAMBER FOR TRIANGULAR AND SWEPTBACK WINGS. John W. Boyd, Eugene Migotsky, and Benton E. Wetzel. November 1955. 79p. diagrs., tabs. (NACA RM A55G19)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A HIGHLY TAPERED UNSWEPT WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. Joseph D. Brooks. February 1956. 30p. diagrs., photos., tab. (NACA RM L55J20)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

A THEORETICAL STUDY OF THE AERODYNAMICS OF SLENDER CRUCIFORM-WING ARRANGEMENTS AND THEIR WAKES. John R. Spreiter and Alvin H. Sacks. 1957. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1296. Supersedes TN 3528)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. 1957. iii, 29p. diagrs. (NACA Rept. 1318. Supersedes TN 3717)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. 1957. ii, 19p. diagrs., tabs. (NACA Rept. 1321. Supersedes TN 3864.)

METHOD FOR CALCULATING THE AERODYNAMIC LOADING ON AN OSCILLATING FINITE WING IN SUBSONIC AND SONIC FLOW. Harry L. Runyan and Donald S. Woolston. 1957. ii, 30p. diagrs., tabs. (NACA Rept. 1322. Supersedes TN 3694)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. 1957. ii, 43p. diagrs., photo., tabs. (NACA Rept. 1327. Supersedes TN 3738)

THE MINIMIZATION OF WAVE DRAG FOR WINGS AND BODIES WITH GIVEN BASE AREA OR VOLUME. Max. A. Heaslet. July 1957. 27p. (NACA TN 3289)

THE USE OF PURE TWIST FOR DRAG REDUCTION ON ARROW WINGS WITH SUBSONIC LEADING EDGES. Frederick C. Grant. August 1957. 28p. diagrs., tabs. (NACA TN 4104)

EXPERIMENTAL INVESTIGATION OF LIFT, DRAG, AND PITCHING MOMENT OF FIVE ANNULAR AIRFOILS. Herman S. Fletcher. October 1957. 25p. diagrs., photos. (NACA TN 4117)

LIFT AND MOMENT ON THIN ARROWHEAD WINGS WITH SUPERSONIC EDGES OSCILLATING IN SYMMETRIC FLAPPING AND ROLL AND APPLICATION TO THE FLUTTER OF AN ALL-MOVABLE CONTROL SURFACE. H. J. Cunningham. January 1958. 58p. diagrs. (NACA TN 4189)

DRAG MINIMIZATION FOR WINGS IN SUPERSONIC FLOW, WITH VARIOUS CONSTRAINTS. Max. A. Heaslet and Franklyn B. Fuller. February 1958. 30p. (NACA TN 4227)

EXPERIMENTAL STUDY OF THE EQUIVALENCE OF TRANSONIC FLOW ABOUT SLENDER CONE-CYLINDERS OF CIRCULAR AND ELLIPTIC CROSS SECTION. William A. Page. April 1958. 45p. diagrs., photos., tab. (NACA TN 4233)

GENERAL SOLUTIONS FOR FLOW PAST SLENDER CAMBERED WINGS WITH SWEPT TRAILING EDGES AND CALCULATION OF ADDITIONAL LOADING DUE TO CONTROL SURFACES. E. B. Klunker and Keith C. Harder. May 1958. 55p. diagrs. (NACA TN 4242)

IDEALIZED WINGS AND WING-BODIES AT A MACH NUMBER OF 3. Elliott D. Katzen. July 1958. 11p. diagrs. (NACA TN 4361)

(1.2.2.2) WING VARIABLES

REVIEW OF THE MAXIMUM-LIFT CHARACTERISTICS OF THIN AND SWEPT WINGS. John G. Lowry and Jones F. Cahill. June 5, 1951. 10p. diagrs. (NACA RM L51E03)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 THICKNESS DISTRIBUTION. Charles F. Hall and John C. Heitmeyer. June 12, 1951. 24p. diagrs., photo., tab. (NACA RM A51E01)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION. John C. Heitmeyer and Robert B. Petersen. April 1952. 20p. diagrs., tabs. (NACA RM A52B08)

AERODYNAMIC CHARACTERISTICS EXTENDED TO HIGH ANGLES OF ATTACK AT TRANSONIC SPEEDS OF A SMALL-SCALE 0° SWEEP WING, 45° SWEPTBACK WING, AND 60° DELTA WING. Harleth G. Wiley. November 1952. 26p. diagrs. (NACA RM L52I30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

EFFECTS OF A SERIES OF INBOARD PLAN-FORM MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO 47° SWEPTBACK WINGS OF ASPECT RATIO 3.5, TAPER RATIO 0.2, AND DIFFERENT THICKNESS DISTRIBUTIONS AT MACH NUMBERS OF 1.61 AND 2.01. Morton Cooper and John R. Sevier, Jr. July 1953. 43p. diagrs., photos., tabs. (NACA RM L53E07a)

THE INFLUENCE OF A CHANGE IN BODY SHAPE ON THE EFFECTS OF TWIST AND CAMBER AS DETERMINED BY A TRANSONIC WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. August 1953. 23p. diagrs., tab. (NACA RM L53B03)

EFFECTS OF A SERIES OF INBOARD PLAN-FORM MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO UNSWEPT WINGS OF ASPECT RATIO 3.5, TAPER RATIO 0.2, AND DIFFERENT THICKNESS DISTRIBUTIONS AT MACH NUMBERS OF 1.61 AND 2.01. John R. Sevier, Jr. February 1954. 43p. diagrs., photos. (NACA RM L53K11)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

WING PRESSURE DISTRIBUTIONS AT LOW LIFT FOR THE XF-92A DELTA-WING AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener. October 1954. 54p. diagrs., photos., tabs. (NACA RM H54H06)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO DELTA WINGS AND ONE CLIPPED-TIP DELTA WING OF 4 PERCENT THICKNESS ON A SLENDER BODY. William E. Palmer and Dale L. Burrows. April 1955. 31p. diagrs., photo. (NACA RM L55A07a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL CHARACTERISTICS OF A 3-PERCENT-THICK, ASPECT-RATIO-3, DELTA WING CAMBERED AND TWISTED FOR HIGH LIFT-DRAG RATIOS. Dale L. Burrows and Warren A. Tucker. August 1955. 38p. diagrs., photos., tab. (NACA RM L55F02a)

A STUDY OF CONICAL CAMBER FOR TRIANGULAR AND SWEPTBACK WINGS. John W. Boyd, Eugene Migotsky, and Benton E. Wetzel. November 1955. 79p. diagrs., tabs. (NACA RM A55G19)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

TRANSONIC WIND-TUNNEL INVESTIGATION OF STATIC LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO WING-BODY COMBINATIONS WITH CLIPPED-TIP AND FULL DELTA WINGS OF ASPECT RATIO 1.73. Dale L. Burrows. September 1956. 26p. diagrs. (NACA RM L56F21)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. 1957. ii, 19p. diagrs., tabs. (NACA Rept. 1321. Supersedes TN 3864.)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

THE USE OF PURE TWIST FOR DRAG REDUCTION ON ARROW WINGS WITH SUBSONIC LEADING EDGES. Frederick C. Grant. August 1957. 28p. diagrs., tabs. (NACA TN 4104)

THEORETICAL CALCULATIONS OF SUPERSONIC WAVE DRAG AT ZERO LIFT FOR A PARTICULAR STORE ARRANGEMENT. Kenneth Margolis, Frank S. Malvestuto, Jr., and Peter J. Maxie, Jr. January 1958. 37p. diagrs., tab. (NACA TN 4120)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. September 1958. 62p. diagrs., photos., tabs. (NACA TN 4020. Supersedes RM L51E11)

(1.2.2.2.1) Profiles

REVIEW OF THE MAXIMUM-LIFT CHARACTERISTICS OF THIN AND SWEPT WINGS. John G. Lowry and Jones F. Cahill. June 5, 1951. 10p. diagrs. (NACA RM L51E03)

(1) AERODYNAMICS

FREE-FLIGHT MEASUREMENTS AT MACH NUMBERS FROM 0.7 TO 1.6 OF SOME EFFECTS OF AIRFOIL-THICKNESS DISTRIBUTION AND TRAILING-EDGE ANGLE ON AILERON ROLLING EFFECTIVENESS AND DRAG FOR WINGS WITH 0° AND 45° SWEEPBACK. E. M. Fields and H. Kurt Strass. October 1951. 63p. diagrs., photos., tab. (NACA RM L51G27)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF THICKNESS RATIO AND OF THICKENED ROOT SECTIONS ON THE AERODYNAMIC CHARACTERISTICS OF WINGS WITH 47° SWEEPBACK, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat, Daniel E. Harrison, and Domenic A. Coppolino. October 1951. 38p. diagrs., photo., tab. (NACA RM L51I04a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 1.60. M. Leroy Spearman and John H. Hilton, Jr. January 1952. 31p. diagrs., tabs. (NACA RM L51K15a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 1.60. Ross B. Robinson and Cornelius Driver. January 1952. 27p. diagrs., photos., tabs. (NACA RM L51K16a)

AN INVESTIGATION AT MACH NUMBERS OF 1.62 AND 1.93 OF THE LIFT EFFECTIVENESS AND INTEGRATED DOWNWASH CHARACTERISTICS OF SEVERAL IN-LINE MISSILE CONFIGURATIONS HAVING EQUAL-SPAN WINGS AND TAILS. Carl E. Grigsby. April 1952. 75p. diagrs., tabs. (NACA RM L52A02)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 2.01. Ross B. Robinson. July 1952. 27p. diagrs., photo., tabs. (NACA RM L52E09)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 2.01. Clyde V. Hamilton. August 1952. 37p. diagrs., tabs. (NACA RM L52E23)

AERODYNAMIC CHARACTERISTICS EXTENDED TO HIGH ANGLES OF ATTACK AT TRANSONIC SPEEDS OF A SMALL-SCALE 0° SWEEP WING, 45° SWEPTBACK WING, AND 60° DELTA WING. Harleth G. Wiley. November 1952. 26p. diagrs. (NACA RM L52I30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

DRAG DUE TO LIFT AT MACH NUMBERS UP TO 2.0. Edward C. Polhamus. November 1953. 18p. diagrs. (NACA RM L53I22b)

EFFECT OF SOME SECTION MODIFICATIONS AND PROTUBERANCES ON THE ZERO-LIFT DRAG OF DELTA WINGS AT TRANSONIC AND SUPERSONIC SPEEDS. Carl A. Sandahl and William E. Stoney. February 1954. 43p. diagrs., photos., tabs. (NACA RM L53L24a)

EFFECT OF NOSE SHAPE AND TRAILING-EDGE BLUNTNESS ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT WING OF ASPECT RATIO 3.1, TAPER RATIO 0.4, AND 3-PERCENT THICKNESS. John C. Heitmeyer. March 1954. 36p. diagrs., tabs. (NACA RM A54A04)

THE EFFECT OF CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Harold L. Robinson. June 1954. 14p. diagrs., photo. (NACA RM L54E11)

A METHOD FOR INCREASING THE EFFECTIVENESS OF STABILIZING SURFACES AT HIGH SUPERSONIC MACH NUMBERS. Charles H. McLellan. August 1954. 14p. diagrs. (NACA RM L54F21)

LONGITUDINAL STABILITY CHARACTERISTICS IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE EQUIPPED WITH A LEADING-EDGE WING CHORD-EXTENSION. Jack Fischel and Cyril D. Brunn. October 1954. 62p. diagrs., photos., tab. (NACA RM H54H16)

EFFECTS OF INCREASING REYNOLDS NUMBER FROM 2×10^6 TO 6×10^6 ON THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A 45° SWEPT WING WITH 6° LEADING-EDGE DROOP. James W. Schmeer and J. Lawrence Cooper. February 1955. 22p. diagrs., photo. (NACA RM L54L10)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF SWEEPBACK AND THICKNESS RATIO ON THE WING LOADS OF A WING-BODY COMBINATION OF ASPECT RATIO 4 AND TAPER RATIO 0.6. Robert J. Platt, Jr., and Joseph D. Brooks. April 1955. 44p. diagrs., photos., tab. (NACA RM L54L31b)

INVESTIGATION OF THE EFFECTS OF AN AIRFOIL SECTION MODIFICATION ON THE AERODYNAMIC CHARACTERISTICS AT SUBSONIC AND SUPERSONIC SPEEDS OF A THIN SWEPT WING OF ASPECT RATIO 3 IN COMBINATION WITH A BODY. David Graham and William T. Evans. June 1955. 46p. diagrs., tabs. (NACA RM A55D11)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPTBACK WINGS INCORPORATING LEADING-EDGE CAMBER AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.00×10^6 AND MACH NUMBERS UP TO 0.290. Gerald V. Foster. October 1955. 44p. diagrs. (NACA RM L55H04)

A STUDY OF CONICAL CAMBER FOR TRIANGULAR AND SWEPTBACK WINGS. John W. Boyd, Eugene Migotsky, and Benton E. Wetzel. November 1955. 79p. diagrs., tabs. (NACA RM A55G19)

SOME EFFECTS OF SWEEP AND THICKNESS ON THE EXPERIMENTAL DOWNWASH CHARACTERISTICS AT TRANSONIC SPEEDS OF A SERIES OF HIGHLY TAPERED WINGS WITH AN ASPECT RATIO OF 3. TRANSONIC-BUMP METHOD. Albert G. Few, Jr. February 1956. 65p. diagrs., photo. (NACA RM L55J12)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF TWO 60° SWEPTBACK WINGS AT HIGH REYNOLDS NUMBERS. William C. Schneider. March 1956. 46p. diagrs. (NACA RM L55L30)

EFFECTS OF REYNOLDS NUMBER AND LEADING-EDGE SHAPE ON THE LOW-SPEED LONGITUDINAL STABILITY OF A 6-PERCENT-THICK 45° SWEPTBACK WING. William C. Schneider. April 1956. 32p. diagrs. (NACA RM L56B14)

DATA FROM LARGE-SCALE LOW-SPEED TESTS OF AIRPLANE CONFIGURATIONS WITH A THIN 45° SWEPT WING INCORPORATING SEVERAL LEADING-EDGE CONTOUR MODIFICATIONS. William T. Evans. May 1956. 110p. diagrs., photo., tabs. (NACA RM A56B17)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE SUBSONIC AND TRANSONIC LONGITUDINAL HANDLING QUALITIES OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. June 1956. 57p. diagrs., photos., tabs. (NACA RM H56C30)

THE EFFECT OF CONICAL CAMBER ON THE STATIC LONGITUDINAL, LATERAL, AND DIRECTIONAL CHARACTERISTICS OF A 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. July 1956. 64p. diagrs., tabs. (NACA RM A56D02)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING THICKNESS ON THE STATIC LONGITUDINAL AND LATERAL STABILITY OF UNSWEPT WINGS OF ASPECT RATIO 3 AT HIGH SUBSONIC SPEEDS. William C. Hayes, Jr., and Edward C. Polhamus. August 1956. 43p. diagrs., photos. (NACA RM L56E30a)

AN INVESTIGATION OF FOUR WINGS OF SQUARE PLAN FORM AT A MACH NUMBER OF 6.9 IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL. Charles H. McLellan, Mitchel H. Bertram, and John A. Moore. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1310. Supersedes RM L51D17)

EFFECT OF FREQUENCY OF SIDESLIPPING MOTION ON THE LATERAL STABILITY DERIVATIVES OF A TYPICAL DELTA-WING AIRPLANE. Jacob H. Lichtenstein and James L. Williams. September 1957. 46p. diagrs., photos., tabs. (NACA RM L57F07)

A METHOD FOR THE CALCULATION OF WAVE DRAG ON SUPERSONIC-EDGED WINGS AND BIPLANES. Harvard Lomax and Loma Sluder. March 1958. 24p. (NACA TN 4232)

LOW-SPEED EXPERIMENTAL DETERMINATION OF THE EFFECTS OF LEADING-EDGE RADIUS AND PROFILE THICKNESS ON STATIC AND OSCILLATORY LATERAL STABILITY DERIVATIVES FOR A DELTA WING WITH 60° OF LEADING-EDGE SWEEP. Herman S. Fletcher. July 1958. 45p. diagrs., photos., tabs. (NACA TN 4341)

IDEALIZED WINGS AND WING-BODIES AT A MACH NUMBER OF 3. Elliott D. Katzen. July 1958. 11p. diagrs. (NACA TN 4361)

THE STATIC LONGITUDINAL CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. August 1958. 26p. diagrs., tab. (NACA RM A58C21)

(1.2.2.2.2) Aspect Ratio

PRELIMINARY INVESTIGATION OF THE LOW-AMPLITUDE DAMPING IN PITCH OF TAILLESS DELTA- AND SWEPT-WING CONFIGURATIONS AT MACH NUMBERS FROM 0.7 TO 1.35. Charles T. D'Aiutolo and Robert N. Parker. August 1952. 27p. diagrs., photos., tab. (NACA RM L52G09)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF ASPECT RATIO, SPANWISE VARIATIONS IN SECTION THICKNESS RATIO, AND A BODY INDENTATION ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Melvin M. Carmel. January 1953. 44p. diagrs., tab. (NACA RM L52L26b)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

INVESTIGATION OF WING FLUTTER AT TRANSONIC SPEEDS FOR SIX SYSTEMATICALLY VARIED WING PLAN FORMS. George W. Jones, Jr., and Hugh C. DuBose. August 1953. 32p. diagrs., photos., 3 tabs. (NACA RM L53G10a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF MODIFICATIONS TO AN INDENTED BODY IN COMBINATION WITH A 45° SWEPTBACK WING. Donald L. Loving. September 1953. 29p. diagrs., photos., tabs. (NACA RM L53F02)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

DRAG DUE TO LIFT AT MACH NUMBERS UP TO 2.0. Edward C. Polhamus. November 1953. 18p. diagrs. (NACA RM L53I22b)

A WIND-TUNNEL INVESTIGATION OF THE USE OF SPOILERS FOR OBTAINING STATIC LONGITUDINAL STABILITY OF A CANARD-MISSILE MODEL IN REVERSE FLIGHT. Herman S. Fletcher. June 1954. 15p. diagrs., tab. (NACA RM L54E05)

THE EFFECT OF CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Harold L. Robinson. June 1954. 14p. diagrs., photo. (NACA RM L54E11)

THE ROLLING MOMENT DUE TO SIDESLIP OF SWEPT WINGS AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and William C. Sleeman, Jr. March 1955. 81p. diagrs., photos., tabs. (NACA RM L54L01)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPTBACK WINGS INCORPORATING LEADING-EDGE CAMBER AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.00×10^6 AND MACH NUMBERS UP TO 0.290. Gerald V. Foster. October 1955. 44p. diagrs. (NACA RM L55H04)

AERODYNAMICS OF BODIES, WINGS, AND WING-BODY COMBINATIONS AT HIGH ANGLES OF ATTACK AND SUPERSONIC SPEEDS. Jack N. Nielsen, J. Richard Spahr, and Frank Centolanzi. February 1956. 12p. diagrs. (NACA RM A55L13c)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF TWO 60° SWEPTBACK WINGS AT HIGH REYNOLDS NUMBERS. William C. Schneider. March 1956. 46p. diagrs. (NACA RM L55L30)

EFFECTS OF REYNOLDS NUMBER AND LEADING-EDGE SHAPE ON THE LOW-SPEED LONGITUDINAL STABILITY OF A 6-PERCENT-THICK 45° SWEPTBACK WING. William C. Schneider. April 1956. 32p. diagrs. (NACA RM L56B14)

THE VARIATION WITH WING ASPECT RATIO OF FLAP EFFECTIVENESS ON THIN RECTANGULAR WINGS AT TRANSONIC SPEEDS. John G. Lowry and Robert T. Taylor. August 1956. 60p. diagrs., tabs. (NACA RM L56E18)

WIND-TUNNEL INVESTIGATION OF DAMPING IN ROLL AT SUPERSONIC SPEEDS OF TRIANGULAR WINGS AT ANGLES OF ATTACK. Russell W. McDearmon and Robert A. Jones. September 1956. 32p. diagrs., photos., tab. (NACA RM L56F13a)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT, HIGHLY TAPERED, THIN WINGS AT TRANSONIC SPEEDS. TRANSONIC-BUMP METHOD. Albert G. Few, Jr., and Paul G. Fournier. January 1957. 57p. diagrs., photo. (NACA RM L56I24)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 45° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. David F. Thomas, Jr., and Walter D. Wolhart. September 1957. 30p. diagrs., photos., tabs. (NACA TN 4077)

EXPERIMENTAL INVESTIGATION OF LIFT, DRAG, AND PITCHING MOMENT OF FIVE ANNULAR AIRFOILS. Herman S. Fletcher. October 1957. 25p. diagrs., photos. (NACA TN 4117)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ARBITRARY ASPECT RATIO, SUPERCAVITATING HYDROFOILS OPERATING NEAR THE FREE WATER SURFACE. Virgil E. Johnson, Jr. December 1957. 94p. diagrs., photos. (NACA RM L57I16)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. May 1958. 45p. diagrs., tabs. (NACA TN 4240. Supersedes RM L53F19)

EFFECTS OF BOUNDARY-LAYER DISPLACEMENT AND LEADING-EDGE BLUNTNESS ON PRESSURE DISTRIBUTION, SKIN FRICTION, AND HEAT TRANSFER OF BODIES AT HYPERSONIC SPEEDS. Mitchel H. Bertram and Arthur Henderson, Jr. July 1958. 33p. diagrs. (NACA TN 4301)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. August 1958. 35p. diagrs., photo. (NACA TN 4016. Supersedes RM L55E20b)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF AERODYNAMIC FORCES AND MOMENTS ON LOW-ASPECT-RATIO WINGS UNDERGOING FLAPPING OSCILLATIONS. Donald S. Woolston, Sherman A. Clevenson, and Sumner A. Leadbetter. August 1958. 25p. diagrs., tab. (NACA TN 4302)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 60° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. Walter D. Wolhart and David F. Thomas, Jr. September 1958. 41p. diagrs., tabs. (NACA TN 4397)

(1.2.2.2.3) Sweep

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

THE EFFECTS OF SCALE AND TEST TECHNIQUE ON THE VALIDITY OF SMALL-SCALE MEASUREMENTS OF THE AERODYNAMIC CHARACTERISTICS OF A WING WITH THE LEADING EDGE SWEPT BACK 63°. L. Stewart Rolls. December 9, 1949. 20p. diagrs., photos. (NACA RM A9J06)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.59. Morton Cooper and M. Leroy Spearman. May 23, 1950. 52p. diagrs., photos., tabs. (NACA RM L50C24)

A COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF FOUR WING-FUSELAGE CONFIGURATIONS AS DETERMINED FROM DIFFERENT TEST TECHNIQUES Charles J. Donlan, Boyd C. Myers, II, and Axel T Mattson. October 4, 1950. 66p diagrs , photos , tabs. (NACA RM L50H02)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. FORCE CHARACTERISTICS OF THE COMPLETE CONFIGURATION AND ITS VARIOUS COMPONENTS AT MACH NUMBERS OF 1.40 AND 1.59. Norman F. Smith and Jack E. Marte. January 22, 1951. 55p. diagrs., photos., tab. (NACA RM L50K14)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTION AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.49. Norman F. Smith, Julian H. Katner, and Robert A. Webster. April 20, 1951. 48p. diagrs., photos., tabs. (NACA RM L51C06)

REVIEW OF THE MAXIMUM-LIFT CHARACTERISTICS OF THIN AND SWEPT WINGS. John G. Lowry and Jones F. Cahill. June 5, 1951. 10p. diagrs. (NACA RM L51E03)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 THICKNESS DISTRIBUTION. Charles F. Hall and John C. Heitmeyer. June 12, 1951. 24p. diagrs., photo., tab. (NACA RM A51E01)

BASIC PRESSURE MEASUREMENTS ON A FUSELAGE AND A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT TRANSONIC SPEEDS IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Donald L. Loving and Claude V. Williams. September 1951. 59p. diagrs., photos. (NACA RM L51F05)

FREE-FLIGHT MEASUREMENTS AT MACH NUMBERS FROM 0.7 TO 1.6 OF SOME EFFECTS OF AIRFOIL-THICKNESS DISTRIBUTION AND TRAILING-EDGE ANGLE ON AILERON ROLLING EFFECTIVENESS AND DRAG FOR WINGS WITH 0° AND 45° SWEEPBACK. E. M. Fields and H. Kurt Strass. October 1951. 63p. diagrs., photos., tab. (NACA RM L51G27)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF THICKNESS RATIO AND OF THICKENED ROOT SECTIONS ON THE AERODYNAMIC CHARACTERISTICS OF WINGS WITH 47° SWEEPBACK, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat, Daniel E. Harrison, and Domenic A. Coppolino. October 1951. 38p. diagrs., photo., tab. (NACA RM L51I04a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECT AT M = 1.60 OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF TWO WING-BODY COMBINATIONS WITH 47° SWEPTBACK WINGS. Lowell E. Hasel and John R. Sevier, Jr. January 1952. 31p. diagrs., photos., tabs. (NACA RM L51K14a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 1.60. M. Leroy Spearman and John H. Hilton, Jr. January 1952. 31p. diagrs., tabs. (NACA RM L51K15a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 1.60. Ross B. Robinson and Cornelius Driver. January 1952. 27p. diagrs., photos., tabs. (NACA RM L51K16a)

SUMMARY OF SOME EFFECTIVE AERODYNAMIC TWISTING-MOMENT COEFFICIENTS OF VARIOUS WING-CONTROL CONFIGURATIONS AT MACH NUMBERS FROM 0.6 TO 1.7 AS DETERMINED FROM ROCKET-POWERED MODELS. H. Kurt Strass. January 1952. 22p. diagrs., photo., 2 tabs. (NACA RM L51K20)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION. John C. Heitmeyer and Robert B. Petersen. April 1952. 20p. diagrs., tabs. (NACA RM A52B08)

(1) AERODYNAMICS

AERODYNAMIC LOADING CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A WING OF 45° SWEEPBACK MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Donald L. Loving and Claude V. Williams. May 1952. 58p. diagrs., photos., tab. (NACA RM L52B27)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF THREE 4-PERCENT-THICK WINGS OF SWEEPBACK ANGLES 10.8°, 35°, AND 47°, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN COMBINATION WITH A BODY. Ralph P. Bielat. July 1952. 33p. diagrs., photos., tab. (NACA RM L52B08)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 2.01. Ross B. Robinson. July 1952. 27p. diagrs., photo., tabs. (NACA RM L52E09)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 2.01. Clyde V. Hamilton. August 1952. 37p. diagrs., tabs. (NACA RM L52E23)

PRELIMINARY INVESTIGATION OF THE LOW-AMPLITUDE DAMPING IN PITCH OF TAILLESS DELTA- AND SWEPT-WING CONFIGURATIONS AT MACH NUMBERS FROM 0.7 TO 1.35. Charles T. D'Aiutolo and Robert N. Parker. August 1952. 27p. diagrs., photos., tab. (NACA RM L52G09)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS OF TWO 47° SWEPTBACK WING-BODY CONFIGURATIONS. Ralph P. Bielat and Daniel E. Harrison. September 1952. 87p. diagrs., photos., tab. (NACA RM L52G02)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL WITH LEADING-EDGE CHORD-EXTENSIONS INCORPORATED ON A 40° SWEPTBACK CIRCULAR-ARC WING OF ASPECT RATIO 4 AND TAPER RATIO 0.50. Kenneth W. Goodson and Albert G. Few, Jr. November 1952. 46p. diagrs., photos., tab. (NACA RM L52I18)

AERODYNAMIC CHARACTERISTICS EXTENDED TO HIGH ANGLES OF ATTACK AT TRANSONIC SPEEDS OF A SMALL-SCALE 0° SWEEP WING, 45° SWEPTBACK WING, AND 60° DELTA WING. Harleth G. Wiley. November 1952. 26p. diagrs. (NACA RM L52I30)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON SUBSONIC AND TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE MODELS HAVING 45° SWEPTBACK WINGS OF ASPECT RATIO 4. Kenneth W. Goodson and Albert G. Few, Jr. January 1953. 31p. diagrs., photos., tab. (NACA RM L52K21)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

LOADS DUE TO FLAPS AND SPOILERS ON SWEPTBACK WINGS AT SUPERSONIC AND TRANSONIC SPEEDS. Alexander D. Hammond and F. E. West, Jr. June 1953. 17p. diagrs. (NACA RM L53D29a)

THE INFLUENCE OF A CHANGE IN BODY SHAPE ON THE EFFECTS OF TWIST AND CAMBER AS DETERMINED BY A TRANSONIC WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. August 1953. 23p. diagrs., tab. (NACA RM L53B03)

INVESTIGATION OF WING FLUTTER AT TRANSONIC SPEEDS FOR SIX SYSTEMATICALLY VARIED WING PLAN FORMS. George W. Jones, Jr., and Hugh C. DuBose. August 1953. 32p. diagrs., photos., 3 tabs. (NACA RM L53G10a)

NOTES ON DAMPING IN ROLL AND LOAD DISTRIBUTIONS IN ROLL AT HIGH ANGLES OF ATTACK AND HIGH SUBSONIC SPEED. Richard E. Kuhn. August 1953. 18p. diagrs., tab. (NACA RM L53G13a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF MODIFICATIONS TO AN INDENTED BODY IN COMBINATION WITH A 45° SWEPTBACK WING. Donald L. Loving. September 1953. 29p. diagrs., photos., tabs. (NACA RM L53F02)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

INVESTIGATION OF THE EFFECT OF SPANWISE POSITIONING OF A VERTICALLY SYMMETRIC OGIVE-CYLINDER NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6 WITH AND WITHOUT A FUSELAGE. H. Norman Silvers and Thomas J. King, Jr. October 1953. 62p. diagrs., tabs. (NACA RM L53H17)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE HINGE-MOMENT AND NORMAL-FORCE PROPERTIES OF A FULL-SPAN, CONSTANT-CHORD, PARTIALLY BALANCED TRAILING-EDGE CONTROL ON A 60° CLIPPED DELTA WING BETWEEN MACH NUMBERS OF 0.50 AND 1.26. C. William Martz and John W. Goslee. October 1953. 33p. diagrs., photos., tab. (NACA RM L53I04)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

DATA ON SPOILER-TYPE AILERONS. John G. Lowry. October 1953. 27p. diagrs. (NACA RM L53I24a)

A STUDY OF THE USE OF LEADING-EDGE NOTCHES AS A MEANS FOR IMPROVING THE LOW-SPEED PITCHING-MOMENT CHARACTERISTICS OF A THIN 45° SWEPT WING OF ASPECT RATIO 4. Joseph Weil and William D. Morrison, Jr. December 1953. 17p. diagrs. (NACA RM L53J27a)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING A 45° SWEPT WING OF ASPECT RATIO 6.0. John C. McFall, Jr. January 1954. 34p. diagrs., photos. (NACA RM L53G22a)

WIND-TUNNEL INVESTIGATIONS AT LOW AND TRANSONIC SPEEDS OF THE FEASIBILITY OF SELF-ACTUATING SPOILERS AS A LATERAL-CONTROL DEVICE FOR A MISSILE. Harleth G. Wiley and William C. Hayes, Jr. January 1954. 24p. diagrs., tab. (NACA RM L53K27)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF WING-MOUNTED EXTERNAL STORES ON THE LOADING AND AERODYNAMIC CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING COMBINED WITH A FUSELAGE. H. Norman Silvers, Thomas J. King, Jr., and William J. Alford, Jr. March 1954. 36p. diagrs., tabs. (NACA RM L54A21)

THE EFFECT OF A CHANGE IN BODY SHAPE ON THE LOADING OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. April 1954. 67p. diagrs., photo. (NACA RM L54B09)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF FINNED AND UNFINNED BODIES MOUNTED AT VARIOUS LOCATIONS FROM THE WINGS OF UNSWEPT, AND SWEPT-WING—FUSELAGE MODELS, INCLUDING MEASUREMENTS OF BODY LOADS. William J. Alford, Jr., and H. Norman Silvers. April 1954. 93p. diagrs., photos., tabs. (NACA RM L54B18)

EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD DISTRIBUTION OVER A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.60 TO 1.03. Joseph M. Hallissy, Jr., F. E. West, Jr., and George Liner. May 1954. 162p. diagrs., tabs. (NACA RM L54C17a)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF ADDING VARIOUS COMBINATIONS OF MISSILES ON THE AERODYNAMIC CHARACTERISTICS OF SWEPTBACK AND UNSWEPT WINGS COMBINED WITH A FUSELAGE. H. Norman Silvers and William J. Alford, Jr. June 1954. 39p. diagrs., photo., tabs. (NACA RM L54D20)

THE EFFECT OF CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Harold L. Robinson. June 1954. 14p. diagrs., photo. (NACA RM L54E11)

INVESTIGATION OF THE EFFECT OF INDENTATION ON AN M-PLAN-FORM-WING—BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. August 1954. 24p. diagrs., photos., tab. (NACA RM L54F14)

LOW-SPEED MEASUREMENT OF STATIC STABILITY AND DAMPING DERIVATIVES OF A 60° DELTA-WING MODEL FOR ANGLES OF ATTACK OF 0° TO 90°. Donald E. Hewes. September 1954. 30p. diagrs., photo., tab. (NACA RM L54G22a)

ANALYTICAL STUDY OF THE EFFECT OF CENTER-OF-GRAVITY POSITION ON THE RESPONSE TO LONGITUDINAL CONTROL IN LANDING APPROACHES OF A SWEPT-WING AIRPLANE OF LOW ASPECT RATIO HAVING NO HORIZONTAL TAIL. Ralph W. Stone, Jr. October 1954. 35p. diagrs., tabs. (NACA RM L54H04)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND OPERATING CHARACTERISTICS OF A BELLOWS-ACTUATED SPLIT-FLAP AILERON ON A 60° DELTA WING AT MACH NUMBERS BETWEEN 0.8 AND 1.8. Eugene D. Schult. October 1954. 33p. diagrs., photos. (NACA RM L54H17)

AN INVESTIGATION OF THE EFFECTS OF A GEOMETRIC TWIST ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Claude V. Williams. October 1954. 87p. diagrs., photos., tabs. (NACA RM L54H18)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

EFFECTS OF INCREASING REYNOLDS NUMBER FROM 2×10^6 TO 6×10^6 ON THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A 45° SWEPT WING WITH 6° LEADING-EDGE DROOP. James W. Schmeer and J. Lawrence Cooper. February 1955. 22p. diagrs., photo. (NACA RM L54L10)

EFFECTS OF SWEEP AND TAPER RATIO ON THE LONGITUDINAL CHARACTERISTICS OF AN ASPECT RATIO 3 WING-BODY COMBINATION AT MACH NUMBERS FROM 0.6 TO 1.4. Earl D. Knechtel and James L. Summers. March 1955. 36p. diagrs., photo. (NACA RM A55A03)

(1) AERODYNAMICS

THE ROLLING MOMENT DUE TO SIDESLIP OF SWEPT WINGS AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and William C. Sleeman, Jr. March 1955. 81p. diagrs., photos., tabs. (NACA RM L54L01)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF SWEEPBACK AND THICKNESS RATIO ON THE WING LOADS OF A WING-BODY COMBINATION OF ASPECT RATIO 4 AND TAPER RATIO 0.6. Robert J. Platt, Jr., and Joseph D. Brooks. April 1955. 44p. diagrs., photos., tab. (NACA RM L54L31b)

COMPARISON OF THE STATIC STABILITY OF A 68.7° DELTA-WING MODEL WITH DIHEDRAL AND A TWISTED AND CAMBERED WING MODEL OF THE SAME PLAN FORM. John W. Paulson. April 1955. 18p. diagrs., tab. (NACA RM L55B11)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF AN AILERON LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. May 1955. 59p. diagrs., photo., tabs. (NACA RM L55B18a)

A COMPARISON AT MACH NUMBERS UP TO 0.92 OF THE CALCULATED AND EXPERIMENTAL DOWNWASH AND WAKE CHARACTERISTICS AT VARIOUS HORIZONTAL TAIL HEIGHTS BEHIND A WING WITH 45° OF SWEEPBACK. Jack D. Stephenson, Ralph Selan, and Angelo Bandettini. June 1955. 81p. diagrs., photos., tabs. (NACA RM A55D27a)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

EFFECT OF LEADING-EDGE SWEEPBACK ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 AND TAPER RATIO 0.4 AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. November 1955. 22p. diagrs., tabs. (NACA RM A55H04a)

THE EFFECT OF LEADING-EDGE DROOP UPON THE PRESSURE DISTRIBUTION AND AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING AT TRANSONIC SPEEDS. James W. Schmeer. November 1955. 42p. diagrs., photos. (NACA RM L55I16)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL HAVING CROPPED-DELTA AND UNSWEPT WING PLAN FORMS AND SEVERAL TAIL CONFIGURATIONS. Albert G. Few, Jr. November 1955. 107p. diagrs., photo., tab. (NACA RM L55I23a)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. January 1956. 176p. diagrs., tabs. (NACA RM L55I29)

SOME EFFECTS OF SWEEP AND THICKNESS ON THE EXPERIMENTAL DOWNWASH CHARACTERISTICS AT TRANSONIC SPEEDS OF A SERIES OF HIGHLY TAPERED WINGS WITH AN ASPECT RATIO OF 3. TRANSONIC-BUMP METHOD. Albert G. Few, Jr. February 1956. 65p. diagrs., photo. (NACA RM L55J12)

PRELIMINARY FREE-FLIGHT STUDY OF THE DRAG AND STABILITY OF A SERIES OF SHORT-SPAN MISSILES AT MACH NUMBERS FROM 0.9 TO 1.3. James Rudyard Hall. February 1956. 14p. diagrs., photo. (NACA RM L55J13)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEED OF THE ROLLING STABILITY DERIVATIVES OF A COMPLETE MODEL HAVING A CLIPPED-DELTA WING AND A HIGH HORIZONTAL TAIL. William C. Sleeman, Jr., and Albert G. Few, Jr. February 1956. 32p. diagrs., tab. (NACA RM L55K11)

LONGITUDINAL STABILITY INVESTIGATION FOR A MACH NUMBER RANGE OF 0.8 TO 1.7 OF AN AIRPLANE CONFIGURATION WITH A 45° SWEPT WING AND A LOW HORIZONTAL TAIL. John C. McFall, Jr. February 1956. 32p. diagrs., photos., tab. (NACA RM L55L09)

SOME EFFECTS OF AILERONS ON THE VARIATION OF AERODYNAMIC CHARACTERISTICS WITH SIDESLIP AT LOW SPEED. Kenneth W. Goodson. March 1956. 40p. diagrs., tab. (NACA RM L55L20)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING DIHEDRAL ANGLE AND FIN LENGTH ON THE STATIC STABILITY CHARACTERISTICS OF A MODEL HAVING AN 82° DELTA WING. Kenneth P. Spreemann. April 1956. 30p. diagrs. (NACA RM L55L30a)

LOW-SPEED MEASUREMENTS OF STATIC STABILITY, DAMPING IN YAW, AND DAMPING IN ROLL OF A DELTA, A SWEPT, AND AN UNSWEPT WING FOR ANGLES OF ATTACK FROM 0° TO 90°. Joseph L. Johnson, Jr. April 1956. 19p. diagrs., tabs. (NACA RM L56B01)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF HORIZONTAL-TAIL LOCATION ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING A SWEPTBACK WING IN A HIGH LOCATION. H. Norman Silvers and Thomas J. King, Jr. April 1956. 46p. diagrs., tab. (NACA RM L56B10)

HEAT REQUIREMENTS FOR ICE PROTECTION OF A CYCLICALLY GAS-HEATED, 36° SWEPT AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT. Vernon H. Gray and Uwe H. von Glahn. May 1956. 73p. diagrs., photos., tabs. (NACA RM E56B23)

INVESTIGATION OF THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF TRAILING-EDGE FLAPS OF VARIOUS SPANS ON A WING OF 45° SWEEPBACK AND ASPECT RATIO 6. Roy N. Griffin, Jr., and David H. Hickey. June 1956. 64p. diagrs., photo., tabs. (NACA RM A56B27)

LOW-SPEED WIND-TUNNEL RESULTS FOR A THIN ASPECT-RATIO-1.85 POINTED-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAPS. Albert E. Brown. July 1956. 31p. diagrs., tabs. (NACA RM L56D03)

SOME EFFECTS OF WING FENCES ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA WING OSCILLATING CONTINUOUSLY IN YAW. Donald R. Riley. July 1956. 29p. diagrs., photos., tab. (NACA RM L56D13)

HINGE MOMENT AND EFFECTIVENESS OF AN UNSWEPT CONSTANT-CHORD CONTROL AND AN OVERHANG-BALANCED, SWEPT HINGE-LINE CONTROL ON AN 80° SWEPT POINTED WING AT MACH NUMBERS FROM 0.75 TO 1.96. Lawrence D. Guy. August 1956. 39p. diagrs., photo. (NACA RM L56F11)

LOW-SPEED INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF A FLAP-TYPE SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. August 1956. 25p. diagrs., tab. (NACA RM L56F18)

APPLICATION OF AREA SUCTION TO LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 44° SWEPT-WING MODEL. Curt A. Holzhauser, Robert K. Martin, and V. Robert Page. September 1956. 66p. diagrs., photos., tabs. (NACA RM A56F01)

WIND-TUNNEL INVESTIGATION OF DAMPING IN ROLL AT SUPERSONIC SPEEDS OF TRIANGULAR WINGS AT ANGLES OF ATTACK. Russell W. McDearmon and Robert A. Jones. September 1956. 32p. diagrs., photos., tab. (NACA RM L56F13a)

INVESTIGATION OF SPOILER-SLOT-DEFLECTOR AILERONS AND OTHER SPOILER AILERONS ON A 45° SWEPTBACK-WING—FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., Charles F. Whitcomb, and James W. Schmeer. September 1956. 59p. diagrs., tab. (NACA RM L56F15)

EFFECT OF A FUSELAGE ON THE LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. September 1956. 31p. diagrs., tabs. (NACA RM L56G02)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

A LOW-SPEED INVESTIGATION OF A HIGH-LIFT LATERAL-CONTROL DEVICE CONSISTING OF A SPOILER-SLOT-DEFLECTOR AND A TRAILING-EDGE FLAP ON A TAPERED 45° SWEPTBACK WING. Alexander D. Hammond and Jarrett K. Huffman. October 1956. 21p. diagrs. (NACA RM L56H31)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH A 45° SWEPTBACK WING OF ASPECT RATIO 2.8 WITH AREA SUCTION APPLIED TO TRAILING-EDGE FLAPS AND WITH SEVERAL WING LEADING-EDGE MODIFICATIONS. David G Koenig and Kiyoshi Aoyagi. November 1956. 66p. diagrs., photo., tabs. (NACA RM A56H08)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A THIN-DELTA-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAP, EXTENDED DOUBLE SLOTTED FLAP, AND CANARD. Delwin R. Croom and Jarrett K. Huffman. November 1956. 104p. diagrs., tabs. (NACA RM L56I11)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. 1957. ii, 43p. diagrs., photo., tabs. (NACA Rept. 1327. Supersedes TN 3738)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT, HIGHLY TAPERED, THIN WINGS AT TRANSONIC SPEEDS. TRANSONIC-BUMP METHOD. Albert G. Few, Jr., and Paul G. Fournier. January 1957. 57p. diagrs., photo. (NACA RM L56I24)

STATIC LONGITUDINAL CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A COMPLETE AIRPLANE MODEL WITH A HIGHLY TAPERED WING HAVING THE 0.80 CHORD LINE UNSWEPT AND WITH SEVERAL TAIL CONFIGURATIONS. Kenneth W. Goodson. January 1957. 57p. diagrs., photo., tabs. (NACA RM L56J03)

EXPERIMENTAL DETERMINATION AT SUBSONIC SPEEDS OF THE OSCILLATORY AND STATIC LATERAL STABILITY DERIVATIVES OF A SERIES OF DELTA WINGS WITH LEADING-EDGE SWEEP FROM 30° TO 86.5°. William Letko. April 1957. 38p. diagrs., photos., tab. (NACA RM L57A30)

EFFECT OF SWEEP ON PERFORMANCE OF COMPRESSOR BLADE SECTIONS AS INDICATED BY SWEPT-BLADE ROTOR, UNSWEPT-BLADE ROTOR, AND CASCADE TESTS. William R. Godwin. July 1957. 43p. diagrs. (NACA TN 4062)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 45° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. David F. Thomas, Jr., and Walter D. Wolhart. September 1957. 30p. diagrs., photos., tabs. (NACA TN 4077)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF GROUND PROXIMITY AND OF SPLIT FLAPS ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL OSCILLATING IN YAW. Byron M. Jaquet. September 1957. 32p. diagrs. photos., tab. (NACA TN 4119)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. October 1957. 25p. diagrs., photos. (NACA TN 4174. Supersedes RM L53B25a)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP AND LEADING-EDGE MODIFICATIONS TO IMPROVE THE HIGH-LIFT CHARACTERISTICS OF AN AIRPLANE MODEL WITH A WING OF 45° SWEEP AND ASPECT RATIO 2.8. David G. Koenig and Kiyoshi Aoyagi. November 1957. 46p. diagrs., photo., tabs. (NACA RM A57H21)

INVESTIGATION OF DEFLECTORS AS GUST ALLEVIATORS ON A 0.09-SCALE MODEL OF THE BELL X-5 AIRPLANE WITH VARIOUS WING SWEEP ANGLES FROM 20° TO 60° AT MACH NUMBERS FROM 0.40 TO 0.90. Delwin R. Croom and Jarrett K. Huffman. November 1957. 28p. diagrs. (NACA TN 4175)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. January 1958. 47p. diagrs., tab. (NACA TN 4185. Supersedes RM L54C26)

STAGNATION-POINT HEAT TRANSFER TO BLUNT SHAPES IN HYPERSONIC FLIGHT, INCLUDING EFFECTS OF YAW. A. J. Eggers, Jr., C. Frederick Hansen, and Bernard E. Cunningham. April 1958. 54p. diagr. (NACA TN 4229)

EFFECTS OF BOUNDARY-LAYER DISPLACEMENT AND LEADING-EDGE BLUNTNESS ON PRESSURE DISTRIBUTION, SKIN FRICTION, AND HEAT TRANSFER OF BODIES AT HYPERSONIC SPEEDS. Mitchel H. Bertram and Arthur Henderson, Jr. July 1958. 33p. diagrs. (NACA TN 4301)

WIND-TUNNEL INVESTIGATION OF THE HIGH-SUBSONIC STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF SEVERAL WING-BODY CONFIGURATIONS DESIGNED FOR HIGH LIFT-DRAG RATIOS AT A MACH NUMBER OF 1.4. Paul G. Fournier. July 1958. 42p. diagrs., photo., tab. (NACA TN 4340)

LOW-SPEED EXPERIMENTAL DETERMINATION OF THE EFFECTS OF LEADING-EDGE RADIUS AND PROFILE THICKNESS ON STATIC AND OSCILLATORY LATERAL STABILITY DERIVATIVES FOR A DELTA WING WITH 60° OF LEADING-EDGE SWEEP. Herman S. Fletcher. July 1958. 45p. diagrs., photos., tabs. (NACA TN 4341)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. August 1958. 35p. diagrs., photo. (NACA TN 4016. Supersedes RM L55E20b)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. September 1958. 62p. diagrs., photos., tabs. (NACA TN 4020. Supersedes RM L51E11)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE BOUNDARY LAYER ON A YAWED CYLINDER WITH TRANSPIRATION COOLING. Ivan E. Beckwith. September 1958. 72p. diagrs., tabs. (NACA TN 4345)

EFFECTS OF FREQUENCY AND AMPLITUDE ON THE YAWING DERIVATIVES OF TRIANGULAR, SWEPT, AND UNSWEPT WINGS AND OF A TRIANGULAR-WING–FUSELAGE COMBINATION WITH AND WITHOUT A TRIANGULAR TAIL PERFORMING SINUSOIDAL YAWING OSCILLATIONS. William Letko and Herman S. Fletcher. September 1958. 52p. diagrs., photos., tabs. (NACA TN 4390)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 60° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. Walter D. Wolhart and David F. Thomas, Jr. September 1958. 41p. diagrs., tabs. (NACA TN 4397)

(1.2.2.2.4) Taper and Twist

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

DRAG DUE TO LIFT AT MACH NUMBERS UP TO 2.0. Edward C. Polhamus. November 1953. 18p. diagrs. (NACA RM L53I22b)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO, BODY INDENTATION, FIXED TRANSITION, AND AFTERBODY SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Francis G. Morgan, Jr., and Melvin M. Carmel. March 1954. 37p. diagrs., tab. (NACA RM L54A15)

AN INVESTIGATION OF THE EFFECTS OF A GEOMETRIC TWIST ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Claude V. Williams. October 1954. 87p. diagrs., photos., tabs. (NACA RM L54H18)

EFFECT OF TAPER RATIO ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 WITH 53.1° SWEEPBACK OF LEADING EDGE AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. January 1955. 25p. diagrs., photo., tabs. (NACA RM A54J20)

EFFECTS OF TAPER RATIO ON THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS FROM 0.6 TO 1.4 OF A WING-BODY-TAIL COMBINATION HAVING AN UNSWEPT WING OF ASPECT RATIO 3. James L. Summers, Stuart L. Treon, and Lawrence A. Graham. March 1955. 45p. diagrs., photo. (NACA RM A54L20)

EFFECTS OF SWEEP AND TAPER RATIO ON THE LONGITUDINAL CHARACTERISTICS OF AN ASPECT RATIO 3 WING-BODY COMBINATION AT MACH NUMBERS FROM 0.6 TO 1.4. Earl D. Knechtel and James L. Summers. March 1955. 36p. diagrs., photo. (NACA RM A55A03)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO AND BODY INDENTATION ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING IN THE PRESENCE OF A BODY. James B. Delano and John P. Mugler, Jr. April 1955. 53p. diagrs., photos., tab. (NACA RM L54L28)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL HAVING CROPPED-DELTA AND UNSWEPT WING PLAN FORMS AND SEVERAL TAIL CONFIGURATIONS. Albert G. Few, Jr. November 1955. 107p. diagrs., photo., tab. (NACA RM L55I23a)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

COMBINED EFFECTS OF WING TAPER RATIO AND LOW HORIZONTAL-TAIL POSITION ON LONGITUDINAL STABILITY OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Stanley H. Spooner. October 1956. 28p. diagrs., tab. (NACA RM L56H24)

THE USE OF PURE TWIST FOR DRAG REDUCTION ON ARROW WINGS WITH SUBSONIC LEADING EDGES. Frederick C. Grant. August 1957. 28p. diagrs., tabs. (NACA TN 4104)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. October 1957. 25p. diagrs., photos. (NACA TN 4174. Supersedes RM L53B25a)

GENERAL SOLUTIONS FOR FLOW PAST SLENDER CAMBERED WINGS WITH SWEPT TRAILING EDGES AND CALCULATION OF ADDITIONAL LOADING DUE TO CONTROL SURFACES. E. B. Klunker and Keith C. Harder. May 1958. 55p. diagrs. (NACA TN 4242)

(1.2.2.2.5)
Inlets and Exits

THE EFFECT OF INLET INSTALLATION ON THE ZERO-LIFT DRAG OF A 60° DELTA-WING—BODY CONFIGURATION FROM FLIGHT TESTS AT MACH NUMBERS FROM 0.8 TO 1.86. Charles F. Merlet. December 1955. 29p. diagrs., photos., tabs. (NACA RM L55I09)

(1.2.2.2.6)
Surface Conditions

AERODYNAMIC CHARACTERISTICS EXTENDED TO HIGH ANGLES OF ATTACK AT TRANSONIC SPEEDS OF A SMALL-SCALE 0° SWEEP WING, 45° SWEPTBACK WING, AND 60° DELTA WING. Harleth G. Wiley. November 1952. 26p. diagrs. (NACA RM L52I30)

EFFECTS OF INCREASING REYNOLDS NUMBER FROM 2×10^6 TO 6×10^6 ON THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A 45° SWEPT WING WITH 6° LEADING-EDGE DROOP. James W. Schmeer and J. Lawrence Cooper. February 1955. 22p. diagrs., photo. (NACA RM L54L10)

COMPRESSIBILITY EFFECTS ON A HOVERING HELICOPTER ROTOR HAVING AN NACA 0018 ROOT AIRFOIL TAPERING TO AN NACA 0012 TIP AIRFOIL. Robert D. Powell, Jr. September 1957. 25p. diagrs. (NACA RM L57F26)

EFFECTS OF COMPRESSIBILITY ON ROTOR HOVERING PERFORMANCE AND SYNTHESIZED BLADE-SECTION CHARACTERISTICS DERIVED FROM MEASURED ROTOR PERFORMANCE OF BLADES HAVING NACA 0015 AIRFOIL TIP SECTIONS. James P. Shivers and Paul J. Carpenter. September 1958. 28p. diagrs. (NACA TN 4356)

(1.2.2.2.7)
Dihedral

THE ROLLING MOMENT DUE TO SIDESLIP OF SWEPT WINGS AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and William C. Sleeman, Jr. March 1955. 81p. diagrs., photos., tabs. (NACA RM L54L01)

EXPLORATORY INVESTIGATION OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE IDENTICAL TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. April 1955. 25p. diagrs., photos. (NACA RM A55C28)

COMPARISON OF THE STATIC STABILITY OF A 68.7° DELTA-WING MODEL WITH DIHEDRAL AND A TWISTED AND CAMBERED WING MODEL OF THE SAME PLAN FORM. John W. Paulson. April 1955. 18p. diagrs., tab. (NACA RM L55B11)

ADDITIONAL MEASUREMENTS OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. July 1955. 31p. diagrs. (NACA RM A55F02a)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING DIHEDRAL ANGLE AND FIN LENGTH ON THE STATIC STABILITY CHARACTERISTICS OF A MODEL HAVING AN 82° DELTA WING. Kenneth P. Spreemann. April 1956. 30p. diagrs. (NACA RM L55L30a)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

(1.2.2.3) HIGH-LIFT DEVICES

EFFECTS OF LEADING-EDGE SLATS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION AT MACH NUMBERS OF 0.4 TO 1.03. Jack F. Runckel and Seymour Steinberg. August 195? 50p. diagrs., photos. (NACA RM L53F23)

TRANSONIC FLIGHT MEASUREMENT OF THE AERODYNAMIC LOAD ON THE EXTENDED SLAT OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. James R. Peele. August 1953. 34p. diagrs., photos., tab. (NACA RM L53F29)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

EFFECTS OF LEADING-EDGE CHORD EXTENSIONS AND AN ALL-MOVABLE HORIZONTAL TAIL ON THE AERODYNAMIC CHARACTERISTICS OF A WING-BODY COMBINATION EMPLOYING A TRIANGULAR WING OF ASPECT RATIO 3 MOUNTED IN A HIGH POSITION AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel and Frank A. Pfyl. January 1954. 35p. diagrs., photo., tabs. (NACA RM A53J14a)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS - LONGITUDINAL AND LATERAL STABILITY AND CONTROL. William H. Tolhurst, Jr., and Mark W. Kelly. October 1956. 64p. diagrs., photo., tabs. (NACA RM A56E24)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. July 1957. 31p. diagrs., tab. (NACA TN 4040. Supersedes RM A55D07)

FLIGHT INVESTIGATION OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE EQUIPPED WITH AN AREA-SUCTION EJECTOR FLAP AND VARIOUS WING LEADING-EDGE DEVICES. Seth B. Anderson, Alan E. Faye, Jr., and Robert C. Innis. September 1957. 28p. diagrs., photos., tab. (NACA RM A57G10)

WIND-TUNNEL INVESTIGATION OF EXTERNAL-FLOW JET-AUGMENTED DOUBLE SLOTTED FLAPS ON A RECTANGULAR WING AT AN ANGLE OF ATTACK OF 0° TO HIGH MOMENTUM COEFFICIENTS. Edwin E. Davenport. September 1957. 31p. diagrs., tabs. (NACA TN 4079)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE FLOW-FIELD CHARACTERISTICS AND GROUND INFLUENCE ON A MODEL WITH JET-AUGMENTED FLAPS. Raymond D. Vogler and Thomas R. Turner. September 1957. 48p. diagrs., photos. (NACA TN 4116)

TRANSITION-FLIGHT INVESTIGATION OF A FOUR-ENGINE-TRANSPORT VERTICAL-TAKE-OFF AIRPLANE MODEL UTILIZING A LARGE FLAP AND EXTENSIBLE VANES FOR REDIRECTING THE PROPELLER SLIPSTREAM. Louis P. Tosti. December 1957. 35p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4131)

INVESTIGATION OF THE EFFECTS OF PROPELLER DIAMETER ON THE ABILITY OF A FLAPPED WING, WITH AND WITHOUT BOUNDARY-LAYER CONTROL, TO DEFLECT A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. December 1957. 47p. diagrs., photos. (NACA TN 4181)

LOW-SPEED BOUNDARY-LAYER-CONTROL INVESTIGATION ON A THIN RECTANGULAR SEMI-SPAN WING WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Delwin R. Croom and Thomas R. Turner. January 1958. 213p. diagrs., tabs. (NACA RM L57J15)

WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL STABILITY AND TRIM CHARACTERISTICS OF A SWEPTBACK-WING JET TRANSPORT MODEL EQUIPPED WITH AN EXTENSIBLE LOW-JET-AUGMENTED FLAP. Joseph L. Johnson, Jr. January 1958. 64p. diagrs., tab. (NACA [illegible])

EFFECTIVENESS OF BOUNDARY-LAYER CONTROL, OBTAINED BY BLOWING OVER A PLAIN REAR FLAP IN COMBINATION WITH A FORWARD SLOTTED FLAP, IN DEFLECTING A SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. February 1958. 32p. diagrs., photo. (NACA TN 4200)

LOW-SUBSONIC INVESTIGATION TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND EFFECTIVENESS OF SPOILERS ON A THIN, LOW-ASPECT-RATIO, UNSWEPT, UNTAPERED, SEMI-SPAN WING AND ON THE WING WITH LEADING- AND TRAILING-EDGE FLAPS. Delwin R. Croom. April 1958. 133p. diagrs., tabs. (NACA RM L58B05)

EXPLORATORY WIND-TUNNEL INVESTIGATION TO DETERMINE THE LIFT EFFECTS OF BLOWING OVER FLAPS FROM NACELLES MOUNTED ABOVE THE WING. John M. Riebe and Edwin E. Davenport. June 1958. 19p. diagrs., tab. (NACA TN 4298)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF FLIGHT CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT AIRPLANE MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP. Joseph L. Johnson, Jr. July 1958. 32p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4255)

EFFECTS OF PROPELLER POSITION AND OVERLAP ON THE SLIPSTREAM DEFLECTION CHARACTERISTICS OF A WING-PROPELLER CONFIGURATION EQUIPPED WITH A SLIDING AND FOWLER FLAP. William C. Hayes, Jr., Richard E. Kuhn, and Irving R. Sherman. September 1958. 81p. diagrs., photos. (NACA TN 4404)

(1.2.2.3.1) Trailing-Edge Flaps

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL WITH LEADING-EDGE CHORD-EXTENSIONS INCORPORATED ON A 40° SWEPTBACK CIRCULAR-ARC WING OF ASPECT RATIO 4 AND TAPER RATIO 0.50. Kenneth W. Goodson and Albert G. Few, Jr. November 1952. 46p. diagrs., photos., tab. (NACA RM L52I18)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

EFFECTS OF OVERHANG BALANCE ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT TRANSONIC AND SUPERSONIC SPEEDS. Lawrence D. Guy. September 1954. 48p. diagrs., photo. (NACA RM L54G12a)

EFFECTS OF A DETACHED TAB ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT MACH NUMBERS FROM 0.75 TO 1.96. Odell A. Morris and Gertrude C. Westrick. April 1955. 36p. diagrs., photo. (NACA RM L55B15)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE LOW-SPEED STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. July 1955. 62p. diagrs., photos., tabs. (NACA RM H55E31a)

A HORIZONTAL-TAIL ARRANGEMENT FOR COUNTERACTING STATIC LONGITUDINAL INSTABILITY OF SWEPTBACK WINGS. George G. Edwards and Howard F. Savage. May 1956. 51p. diagrs., photos., tab. (NACA RM A56D06)

INVESTIGATION OF THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF TRAILING-EDGE FLAPS OF VARIOUS SPANS ON A WING OF 45° SWEEPBACK AND ASPECT RATIO 6. Roy N. Griffin, Jr., and David H. Hickey. June 1956. 64p. diagrs., photo., tabs. (NACA RM A56B27)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING THE LONGITUDINAL CHARACTERISTICS OF A THIN UNSWEPT-WING MODEL EQUIPPED WITH LEADING- AND TRAILING-EDGE FLAPS. David G. Koenig. July 1956. 52p. diagrs., photo., tabs. (NACA RM A56D23)

LOW-SPEED WIND-TUNNEL RESULTS FOR A THIN ASPECT-RATIO-1.85 POINTED-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAPS. Albert E. Brown. July 1956. 31p. diagrs., tabs. (NACA RM L56D03)

BLOWING OVER THE FLAPS AND WING LEADING EDGE OF A THIN 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH LEADING-EDGE DEVICES. H. Clyde McLemore and Marvin P. Fink. July 1956. 57p. diagrs., photo. (NACA RM L56E16)

HINGE MOMENT AND EFFECTIVENESS OF AN UNSWEPT CONSTANT-CHORD CONTROL AND AN OVERHANG-BALANCED, SWEPT HINGE-LINE CONTROL ON AN 80° SWEPT POINTED WING AT MACH NUMBERS FROM 0.75 TO 1.96. Lawrence D. Guy. August 1956. 39p. diagrs., photo. (NACA RM L56F11)

APPLICATION OF AREA SUCTION TO LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 44° SWEPT-WING MODEL. Curt A. Holzhauser, Robert K. Martin, and V. Robert Page. September 1956. 66p. diagrs., photos., tabs. (NACA RM A56F01)

EFFECT OF A FUSELAGE ON THE LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. September 1956. 31p. diagrs., tabs. (NACA RM L56G02)

WIND-TUNNEL TESTS OF BLOWING BOUNDARY-LAYER CONTROL WITH JET PRESSURE RATIOS UP TO 10 ON THE TRAILING-EDGE FLAPS OF A 35° SWEPTBACK WING AIRPLANE. Mark W. Kelly and Jeffrey H. Tucker. October 1956. 24p. diagrs., photo., tab. (NACA RM A56G19)

A LOW-SPEED INVESTIGATION OF A HIGH-LIFT LATERAL-CONTROL DEVICE CONSISTING OF A SPOILER-SLOT-DEFLECTOR AND A TRAILING-EDGE FLAP ON A TAPERED 45° SWEPTBACK WING. Alexander D. Hammond and Jarrett K. Huffman. October 1956. 21p. diagrs. (NACA RM L56H31)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH A 45° SWEPTBACK WING OF ASPECT RATIO 2.8 WITH AREA SUCTION APPLIED TO TRAILING-EDGE FLAPS AND WITH SEVERAL WING LEADING-EDGE MODIFICATIONS. David G. Koenig and Kiyoshi Aoyagi. November 1956. 66p. diagrs., photo., tabs. (NACA RM A56H08)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A THIN-DELTA-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAP, EXTENDED DOUBLE SLOTTED FLAP, AND CANARD. Delwin R. Croom and Jarrett K. Huffman. November 1956. 104p. diagrs., tabs. (NACA RM L56I11)

HIGH-PRESSURE BLOWING OVER FLAP AND WING LEADING EDGE OF A THIN LARGE-SCALE 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH A DROOPED NOSE AND A NOSE WITH A RADIUS INCREASE. Marvin P. Fink and H. Clyde McLemore. May 1957. 40p. diagrs., photo. (NACA RM L57D23)

AIR LOAD DISTRIBUTIONS ON A FLAPPED WING RESULTING FROM LEADING-EDGE AND TRAILING-EDGE BLOWING. H. Clyde McLemore. June 1957. 9p. diagrs. (NACA RM L57D23b)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. July 1957. 31p. diagrs., tab. (NACA TN 4040. Supersedes RM A55D07)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. III - EFFECTS OF TRAILING-EDGE FLAPS. Bruce E. Tinling and A. V. Karpen. July 1957. 37p. diagrs., photos., tabs. (NACA TN 4043. Supersedes RM A54L07)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1957. 48p. diagrs., photos., tabs. (NACA TN 4044. Supersedes RM A55E04)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE FLOW-FIELD CHARACTERISTICS AND GROUND INFLUENCE ON A MODEL WITH JET-AUGMENTED FLAPS. Raymond D. Vogler and Thomas R. Turner. September 1957. 48p. diagrs., photos. (NACA TN 4116)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF GROUND PROXIMITY AND OF SPLIT FLAPS ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL OSCILLATING IN YAW. Byron M. Jaquet. September 1957. 32p. diagrs. photos., tab. (NACA TN 4119)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP AND LEADING-EDGE MODIFICATIONS TO IMPROVE THE HIGH-LIFT CHARACTERISTICS OF AN AIRPLANE MODEL WITH A WING OF 45° SWEEP AND ASPECT RATIO 2.8. David G. Koenig and Kiyoshi Aoyagi. November 1957. 46p. diagrs., photo., tabs. (NACA RM A57H21)

WIND-TUNNEL INVESTIGATION OF THE USE OF LEADING-EDGE AND TRAILING-EDGE AREA-SUCTION FLAPS ON A 13-PERCENT-THICK STRAIGHT WING AND FUSELAGE MODEL. Curt A. Holzhauser. January 1958. 26p. diagrs., photo., tabs. (NACA RM A57K01)

EXPERIMENTAL INVESTIGATION OF THE LATERAL TRIM OF A WING-PROPELLER COMBINATION AT ANGLES OF ATTACK UP TO 90° WITH ALL PROPELLERS TURNING IN THE SAME DIRECTION. William A. Newsom, Jr. January 1958. 27p. diagrs. (NACA TN 4190)

SURFACE PRESSURE DISTRIBUTIONS ON A LARGE-SCALE 49° SWEPTBACK WING-BODY-TAIL CONFIGURATION WITH BLOWING APPLIED OVER THE FLAPS AND WING LEADING EDGE. H. Clyde McLemore and Marvin P. Fink. February 1958. 129p. diagrs., photo., tabs. (NACA RM L57K25)

GENERAL SOLUTIONS FOR FLOW PAST SLENDER CAMBERED WINGS WITH SWEPT TRAILING EDGES AND CALCULATION OF ADDITIONAL LOADING DUE TO CONTROL SURFACES. E. B. Klunker and Keith C. Harder. May 1958. 55p. diagrs. (NACA TN 4242)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH BLOWING FROM THE SHROUD AHEAD OF THE TRAILING-EDGE FLAPS. William H. Tolhurst, Jr. July 1958. 40p. diagrs., photos., tabs. (NACA TN 4283)

EXPLORATORY WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF JET FLAPS ON UNSWEPT RECTANGULAR WINGS. Vernard E. Lockwood and Raymond D. Vogler. August 1958. 37p. diagrs. (NACA TN 4353)

LARGE-SCALE WIND-TUNNEL TESTS OF A JET-TRANSPORT-TYPE MODEL WITH LEADING- AND TRAILING-EDGE HIGH-LIFT DEVICES. David H. Hickey and Kiyoshi Aoyagi. September 1958. 32p. diagrs., photo., tabs. (NACA RM A58H12)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH AN UNSWEPT, ASPECT-RATIO-10 WING, TWO PROPELLERS, AND AREA-SUCTION FLAPS. James A. Weiberg, Roy N. Griffin, Jr., and George L. Florman. September 1958. 76p. diagrs., photos., tab. (NACA TN 4365)

(1.2.2.3.2) Slots and Slats

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

EFFECTS OF LEADING-EDGE SLATS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION AT MACH NUMBERS OF 0.4 TO 1.03. Jack F. Runckel and Seymour Steinberg. August 1953. 50p. diagrs., photos. (NACA RM L53F23)

TRANSONIC FLIGHT MEASUREMENT OF THE AERODYNAMIC LOAD ON THE EXTENDED SLAT OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. James R. Peele. August 1953. 34p. diagrs., photos., tab. (NACA RM L53F29)

EFFECT OF WING SLATS AND INBOARD WING FENCES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS. Jack Fischel. February 1954. 125p. diagrs., photos., tabs. (NACA RM L53L16)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE LOW-SPEED STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. July 1955. 62p. diagrs., photos., tabs. (NACA RM H55E31a)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE SUBSONIC AND TRANSONIC LONGITUDINAL HANDLING QUALITIES OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. June 1956. 57p. diagrs., photos., tabs. (NACA RM H56C30)

BLOWING OVER THE FLAPS AND WING LEADING EDGE OF A THIN 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH LEADING-EDGE DEVICES. H. Clyde McLemore and Marvin P. Fink. July 1956. 57p. diagrs., photo. (NACA RM L56E16)

HIGH-PRESSURE BLOWING OVER FLAP AND WING LEADING EDGE OF A THIN LARGE-SCALE 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH A DROOPED NOSE AND A NOSE WITH A RADIUS INCREASE. Marvin P. Fink and H. Clyde McLemore. May 1957. 40p. diagrs., photo. (NACA RM L57D23)

SURFACE PRESSURE DISTRIBUTIONS ON A LARGE-SCALE 49° SWEPTBACK WING-BODY-TAIL CONFIGURATION WITH BLOWING APPLIED OVER THE FLAPS AND WING LEADING EDGE. H. Clyde McLemore and Marvin P. Fink. February 1958. 129p. diagrs., photo., tabs. (NACA RM L57K25)

LARGE-SCALE WIND-TUNNEL TESTS OF A JET-TRANSPORT-TYPE MODEL WITH LEADING- AND TRAILING-EDGE HIGH-LIFT DEVICES. David H. Hickey and Kiyoshi Aoyagi. September 1958. 32p. diagrs., photo., tabs. (NACA RM A58H12)

(1.2.2.3.3) Leading-Edge Flaps

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - WING AND FUSELAGE PRESSURE DISTRIBUTION. Joseph W. Cleary and Jack A. Mellenthin. June 22. 1950. 61p. diagrs., photos. (NACA RM A50D07)

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL WITH LEADING-EDGE CHORD-EXTENSIONS INCORPORATED ON A 40° SWEPTBACK CIRCULAR-ARC WING OF ASPECT RATIO 0.50. Kenneth W. Goodson and Albert G. Few, Jr. November 1952. 46p. diagrs., photos., tab. (NACA RM L52I18)

FREE-SPINNING-TUNNEL INVESTIGATION TO DETERMINE THE EFFECT OF SPINS AND RECOVERIES OF WING LEADING-EDGE CHORD-EXTENSIONS AND DROOPED LEADING-EDGE FLAPS ON SCALE MODELS OF TWO SWEPTBACK-WING FIGHTER AIRPLANES. Jack H. Wilson and Walter J. Klinar. May 1953. 28p. photo., diagrs., tabs. (NACA RM L53C06)

RELATIONSHIP OF FLOW OVER A 45° SWEPTBACK WING WITH AND WITHOUT LEADING-EDGE CHORD-EXTENSIONS TO LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., and James H. Henderson. October 1953. 47p. diagrs., photos. (NACA RM L53H18b)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

DRAG DUE TO LIFT AT MACH NUMBERS UP TO 2.0. Edward C. Polhamus. November 1953. 18p. diagrs. (NACA RM L53I22b)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF AN AILERON LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. May 1955. 59p. diagrs., photo., tabs. (NACA RM L55B18a)

A SYSTEMATIC STUDY OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF THREE 45° SWEPTBACK WINGS. H. Neale Kelly. October 1955. 113p. diagrs., photo., tabs. (NACA RM L55H19)

THE EFFECT OF LEADING-EDGE DROOP UPON THE PRESSURE DISTRIBUTION AND AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING AT TRANSONIC SPEEDS. James W. Schmeer. November 1955. 42p. diagrs., photos. (NACA RM L55I16)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING THE LONGITUDINAL CHARACTERISTICS OF A THIN UNSWEPT-WING MODEL EQUIPPED WITH LEADING- AND TRAILING-EDGE FLAPS. David G. Koenig. July 1956. 52p. diagrs., photo., tabs. (NACA RM A56D23)

APPLICATION OF AREA SUCTION TO LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 44° SWEPT-WING MODEL. Curt A. Holzhauser, Robert K. Martin, and V. Robert Page. September 1956. 66p. diagrs., photos., tabs. (NACA RM A56F01)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH A 45° SWEPTBACK WING OF ASPECT RATIO 2.8 WITH AREA SUCTION APPLIED TO TRAILING-EDGE FLAPS AND WITH SEVERAL WING LEADING-EDGE MODIFICATIONS. David G. Koenig and Kiyoshi Aoyagi. November 1956. 66p. diagrs., photo., tabs. (NACA RM A56H08)

WING LOADS AND LOAD DISTRIBUTIONS THROUGHOUT THE LIFT RANGE OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1956. 191p. diagrs., photo., tabs. (NACA RM H56G13)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP AND LEADING-EDGE MODIFICATIONS TO IMPROVE THE HIGH-LIFT CHARACTERISTICS OF AN AIRPLANE MODEL WITH A WING OF 45° SWEEP AND ASPECT RATIO 2.8. David G. Koenig and Kiyoshi Aoyagi. November 1957. 46p. diagrs., photo., tabs. (NACA RM A57H21)

FLIGHT DATA PERTINENT TO BUFFETING AND MAXIMUM NORMAL-FORCE COEFFICIENT OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Thomas F. Baker, James A. Martin, and Betty J. Scott. November 1957. 41p. diagrs., photo., tabs. (NACA RM H57H09)

WIND-TUNNEL INVESTIGATION OF THE USE OF LEADING-EDGE AND TRAILING-EDGE AREA-SUCTION FLAPS ON A 13-PERCENT-THICK STRAIGHT WING AND FUSELAGE MODEL. Curt A. Holzhauser. January 1958. 26p. diagrs., photo., tabs. (NACA RM A57K01)

SURFACE PRESSURE DISTRIBUTIONS ON A LARGE-SCALE 49° SWEPTBACK WING-BODY-TAIL CONFIGURATION WITH BLOWING APPLIED OVER THE FLAPS AND WING LEADING EDGE. H. Clyde McLemore and Marvin P. Fink. February 1958. 129p. diagrs., photo., tabs. (NACA RM L57K25)

THE EFFECTS OF AN INVERSE-TAPER LEADING-EDGE FLAP ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF A WING-BODY COMBINATION HAVING AN ASPECT RATIO OF 3 AND 45° OF SWEEPBACK AT MACH NUMBERS TO 0.92. Fred A. Demele and K. Harmon Powell. August 1958. 57p. diagrs., photo., tabs. (NACA TN 4366)

(1.2.2.4) CONTROLS

HINGE-MOMENT CHARACTERISTICS FOR SEVERAL TIP CONTROLS ON A 60° SWEPTBACK DELTA WING AT MACH NUMBER 1.61. K. R. Czarnecki and Douglas R. Lord. January 1953. 31p. diagrs., photos. (NACA RM L52K28)

AN EXPERIMENTAL INVESTIGATION AT SUBSONIC AND SUPERSONIC SPEEDS OF THE TORSIONAL DAMPING CHARACTERISTICS OF A CONSTANT-CHORD CONTROL SURFACE OF AN ASPECT RATIO 2 TRIANGULAR WING. David E. Reese, Jr. July 1953. 32p. diagrs., photos., tab. (NACA RM A53D27)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF SEVERAL INTERCHANGEABLE TIP CONTROLS ON A 60° DELTA WING AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Odell A. Morris. November 1953. 33p. diagrs., photo., tab. (NACA RM L53J08a)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

WING PRESSURE DISTRIBUTIONS OVER THE LIFT RANGE OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AT SUBSONIC AND TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1955. 135p. diagrs., photos., tabs. (NACA RM H55G07)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF JET, SPOILER, AND AILERON CONTROLS ON A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Raymond D. Vogler. July 1956. 52p. diagrs., photo., tabs. (NACA RM L56E25)

FLIGHT INVESTIGATION OF THE TRANSONIC LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Jack Fischel, Euclid C. Holleman, and Robert A. Tremant. December 1957. 61p. diagrs., photos., tab. (NACA RM H57I05)

GENERAL SOLUTIONS FOR FLOW PAST SLENDER CAMBERED WINGS WITH SWEPT TRAILING EDGES AND CALCULATION OF ADDITIONAL LOADING DUE TO CONTROL SURFACES. E. B. Klunker and Keith C. Harder. May 1958. 55p. diagrs. (NACA TN 4242)

(1.2.2.4.1) Flap Type

PRELIMINARY INVESTIGATION AT A MACH NUMBER OF 1.9 AND A REYNOLDS NUMBER OF 2,200,000 OF THREE AILERONS APPLICABLE TO THE BELL XS-2 AIRPLANE DESIGN. James C. Sivells and D. William Conner. May 25, 1948. 11p. diagrs., tab. (NACA RM L8D02)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

INVESTIGATION OF THE AERODYNAMIC EFFECTS OF AN EXTERNAL STORE IN COMBINATION WITH 60° DELTA AND LOW-ASPECT-RATIO TAPERED WINGS AT A MACH NUMBER OF 1.9. Ellery B. May, Jr. January 9, 1951. 46p. diagrs., photos. (NACA RM L50K03)

AN INVESTIGATION AT MACH NUMBERS OF 1.40 AND 1.59 OF THE EFFECTS OF AILERON PROFILE ON THE AERODYNAMIC CHARACTERISTICS OF A COMPLETE MODEL OF A SUPERSONIC AIRCRAFT CONFIGURATION. M. Leroy Spearman and Robert A. Webster. January 15, 1951. 40p. diagrs., photos., tabs. (NACA RM L50J31)

FREE-FLIGHT MEASUREMENTS AT MACH NUMBERS FROM 0.7 TO 1.6 OF SOME EFFECTS OF AIRFOIL-THICKNESS DISTRIBUTION AND TRAILING-EDGE ANGLE ON AILERON ROLLING EFFECTIVENESS AND DRAG FOR WINGS WITH 0° AND 45° SWEEPBACK. E. M. Fields and H. Kurt Strass. October 1951. 63p. diagrs., photos., tab. (NACA RM L51G27)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

SUMMARY OF SOME EFFECTIVE AERODYNAMIC TWISTING-MOMENT COEFFICIENTS OF VARIOUS WING-CONTROL CONFIGURATIONS AT MACH NUMBERS FROM 0.6 TO 1.7 AS DETERMINED FROM ROCKET-POWERED MODELS. H. Kurt Strass. January 1952. 22p. diagrs., photo., 2 tabs. (NACA RM L51K20)

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

LOADS DUE TO FLAPS AND SPOILERS ON SWEPT-BACK WINGS AT SUPERSONIC AND TRANSONIC SPEEDS. Alexander D. Hammond and F. E. West, Jr. June 1953. 17p. diagrs. (NACA RM L53D29a)

AN EXPERIMENTAL INVESTIGATION AT SUBSONIC AND SUPERSONIC SPEEDS OF THE TORSIONAL DAMPING CHARACTERISTICS OF A CONSTANT-CHORD CONTROL SURFACE OF AN ASPECT RATIO 2 TRIANGULAR WING. David E. Reese, Jr. July 1953. 32p. diagrs., photos., tab. (NACA RM A53D27)

SUBSONIC AND SUPERSONIC HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNBALANCED LATERAL CONTROL HAVING LOW THEORETICAL HINGE MOMENTS AT SUPERSONIC SPEEDS. Kennith L. Goin and William E. Palmer. October 1953. 55p. diagrs., photos. (NACA RM L53G31a)

RECENT EXPERIENCES WITH FLUTTER FAILURE OF SWEPTBACK, TAPERED WINGS HAVING OUTBOARD, PARTIAL-SPAN SPOILER CONTROLS. H. Kurt Strass and Edward T. Marley. October 1953. 20p. diagrs., photos., tabs. (NACA RM L53H26)

INVESTIGATION OF A TRAILING-EDGE PADDLE-CONTROL SURFACE ON A TRIANGULAR WING OF ASPECT RATIO 2 AT SUBSONIC AND SUPERSONIC SPEEDS. Louis H. Ball. February 1954. 18p. diagrs., tab. (NACA RM A53K20)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

EFFECTS OF OVERHANG BALANCE ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT TRANSONIC AND SUPERSONIC SPEEDS. Lawrence D. Guy. September 1954. 48p. diagrs., photo. (NACA RM L54G12a)

SOME EFFECTS OF AILERON SPAN, AILERON CHORD, AND WING TWIST ON ROLLING EFFECTIVENESS AS DETERMINED BY ROCKET-POWERED MODEL TESTS AND THEORETICAL ESTIMATES. H. Kurt Strass and Warren A. Tucker. September 1954. 29p. diagrs., photos., tabs. (NACA RM L54G13)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND OPERATING CHARACTERISTICS OF A BELLOWS-ACTUATED SPLIT-FLAP AILERON ON A 60° DELTA WING AT MACH NUMBERS BETWEEN 0.8 AND 1.8. Eugene D. Schult. October 1954. 33p. diagrs., photos. (NACA RM L54H17)

ROLLING PERFORMANCE OF THE REPUBLIC YF-84F AIRPLANE AS MEASURED IN FLIGHT. John B. McKay. January 1955. 24p. diagrs., photo., tab. (NACA RM H54G20a)

FREE-FLIGHT INVESTIGATION TO DETERMINE SOME EFFECTS OF TAIL DAMPING AND WING-TAIL INTERFERENCE ON THE ROLLING EFFECTIVENESS OF INBOARD AND OUTBOARD AILERONS ON AN UNTAPERED SWEPTBACK WING. Roland D. English. March 1955. 18p. diagrs., photos. (NACA RM L54L17a)

EFFECTS OF A DETACHED TAB ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT MACH NUMBERS FROM 0.75 TO 1.96. Odell A. Morris and Gertrude C. Westrick. April 1955. 36p. diagrs., photo. (NACA RM L55B15)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF AN AILERON LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. May 1955. 59p. diagrs., photo., tabs. (NACA RM L55B18a)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

SOME EFFECTS OF AILERONS ON THE VARIATION OF AERODYNAMIC CHARACTERISTICS WITH SIDESLIP AT LOW SPEED. Kenneth W. Goodson. March 1956. 40p. diagrs., tab. (NACA RM L55L20)

AERODYNAMIC DAMPING AT MACH NUMBERS OF 1.3 AND 1.6 OF A CONTROL SURFACE ON A TWO-DIMENSIONAL WING BY THE FREE-OSCILLATION METHOD. W. J. Tuovila and Robert W. Hess. May 1956. 21p. diagrs., tabs. (NACA RM L56A26a)

INVESTIGATION OF THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF TRAILING-EDGE FLAPS OF VARIOUS SPANS ON A WING OF 45° SWEEPBACK AND ASPECT RATIO 6. Roy N. Griffin, Jr., and David H. Hickey. June 1956. 64p. diagrs., photo., tabs. (NACA RM A56B27)

THE VARIATION WITH WING ASPECT RATIO OF FLAP EFFECTIVENESS ON THIN RECTANGULAR WINGS AT TRANSONIC SPEEDS. John G. Lowry and Robert T. Taylor. August 1956. 60p. diagrs., tabs. (NACA RM L56E18)

HINGE MOMENT AND EFFECTIVENESS OF AN UNSWEPT CONSTANT-CHORD CONTROL AND AN OVERHANG-BALANCED, SWEPT HINGE-LINE CONTROL ON AN 80° SWEPT POINTED WING AT MACH NUMBERS FROM 0.75 TO 1.96. Lawrence D. Guy. August 1956. 39p. diagrs., photo. (NACA RM L56F11)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS - LONGITUDINAL AND LATERAL STABILITY AND CONTROL. William H. Tolhurst, Jr., and Mark W. Kelly. October 1956. 64p. diagrs., photo., tabs. (NACA RM A56E24)

THE EFFECT OF EXTERNAL STIFFENING RIBS ON THE ROLLING POWER OF AILERONS ON A SWEPT WING. Emily W. Stephens. October 1956. 15p. diagrs., photo., tab. (NACA RM L56D19)

EXPERIMENTAL HINGE MOMENTS ON FREELY OSCILLATING FLAP-TYPE CONTROL SURFACES. C. William Martz. October 1956. 29p. diagrs., photos., tab. (NACA RM L56G20)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1957. 48p. diagrs., photos., tabs. (NACA TN 4044. Supersedes RM A55E04)

WIND-TUNNEL INVESTIGATION OF EXTERNAL-FLOW JET-AUGMENTED DOUBLE SLOTTED FLAPS ON A RECTANGULAR WING AT AN ANGLE OF ATTACK OF 0° TO HIGH MOMENTUM COEFFICIENTS. Edwin E. Davenport. September 1957. 31p. diagrs., tabs. (NACA TN 4079)

LOW-SPEED BOUNDARY-LAYER-CONTROL INVESTIGATION ON A THIN RECTANGULAR SEMI-SPAN WING WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Delwin R. Croom and Thomas R. Turner. January 1958. 213p. diagrs., tabs. (NACA RM L57J15)

WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL STABILITY AND TRIM CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED FLAP. Joseph L. Johnson, Jr. January 1958. 89p. diagrs., tab. (NACA TN 4177)

EXPLORATORY WIND-TUNNEL INVESTIGATION TO DETERMINE THE LIFT EFFECTS OF BLOWING OVER FLAPS FROM NACELLES MOUNTED ABOVE THE WING. John M. Riebe and Edwin E. Davenport. June 1958. 19p. diagrs., tab. (NACA TN 4298)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. August 1958. 35p. diagrs., photo. (NACA TN 4016. Supersedes RM L55E20b)

(1.2.2.4.2) Spoilers

SUMMARY OF SOME EFFECTIVE AERODYNAMIC TWISTING-MOMENT COEFFICIENTS OF VARIOUS WING-CONTROL CONFIGURATIONS AT MACH NUMBERS FROM 0.6 TO 1.7 AS DETERMINED FROM ROCKET-POWERED MODELS. H. Kurt Strass. January 1952. 22p. diagrs., photo., 2 tabs. (NACA RM L51K20)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF SPOILER SPAN AND PROJECTION AND WING FLEXIBILITY ON ROLLING EFFECTIVENESS AND DRAG OF PLAIN SPOILERS ON A TAPERED SWEPTBACK WING AT MACH NUMBERS BETWEEN 0.6 AND 1.6. Eugene D. Schult and E. M. Fields. October 1952. 30p. diagrs., photo., tab. (NACA RM L52H06a)

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

LOADS DUE TO FLAPS AND SPOILERS ON SWEPTBACK WINGS AT SUPERSONIC AND TRANSONIC SPEEDS. Alexander D. Hammond and F. E. West, Jr. June 1953. 17p. diagrs. (NACA RM L53D29a)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

RECENT EXPERIENCES WITH FLUTTER FAILURE OF SWEPTBACK, TAPERED WINGS HAVING OUTBOARD, PARTIAL-SPAN SPOILER CONTROLS. H. Kurt Strass and Edward T. Marley. October 1953. 20p. diagrs., photos., tabs. (NACA RM L53H26)

DATA ON SPOILER-TYPE AILERONS. John G. Lowry. October 1953. 27p. diagrs. (NACA RM L53I24a)

WIND-TUNNEL INVESTIGATIONS AT LOW AND TRANSONIC SPEEDS OF THE FEASIBILITY OF SELF-ACTUATING SPOILERS AS A LATERAL-CONTROL DEVICE FOR A MISSILE. Harleth G. Wiley and William C. Hayes, Jr. January 1954. 24p. diagrs., tab. (NACA RM L53K27)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD DISTRIBUTION OVER A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.60 TO 1.03. Joseph M. Hallissy, Jr., F. E. West, Jr., and George Liner. May 1954. 162p. diagrs., tabs. (NACA RM L54C17a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.61 OF THE COMPLETE CONFIGURATION EQUIPPED WITH SPOILERS. Clyde V. Hamilton and Cornelius Driver. September 1954. 28p. diagrs. (NACA RM L54F15)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND OPERATING CHARACTERISTICS OF A BELLOWS-ACTUATED SPLIT-FLAP AILERON ON A 60° DELTA WING AT MACH NUMBERS BETWEEN 0.8 AND 1.8. Eugene D. Schult. October 1954. 33p. diagrs., photos. (NACA RM L54H17)

COMPARISON OF EFFECTS OF AILERONS AND COMBINATIONS OF SPOILER-SLOT-DEFLECTOR ARRANGEMENTS ON SPIN RECOVERY OF SWEPTBACK-WING MODEL HAVING MASS DISTRIBUTED ALONG THE FUSELAGE. Frederick M. Healy and Walter J. Klinar. November 1954. 18p. diagrs., photo., tabs. (NACA RM L54I14)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON AN 80° DELTA-WING MISSILE. Thomas R. Turner and Raymond D. Vogler. November 1955. 32p. diagrs. (NACA RM L55H22)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. January 1956. 176p. diagrs., tabs. (NACA RM L55I29)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Raymond D. Vogler and Thomas R. Turner. February 1956. 17p. diagrs. (NACA RM L55K09)

AERODYNAMIC LOADINGS ASSOCIATED WITH SWEPT AND UNSWEPT SPOILERS ON A FLAT PLATE AT MACH NUMBERS OF 1.61 AND 2.01. Douglas R. Lord and K. R. Czarnecki. March 1956. 174p. diagrs., photos., tabs. (NACA RM L55L12)

LOW-SPEED INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF A FLAP-TYPE SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. August 1956. 25p. diagrs., tab. (NACA RM L56F18)

INVESTIGATION OF SPOILER-SLOT-DEFLECTOR AILERONS AND OTHER SPOILER AILERONS ON A 45° SWEPTBACK-WING—FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., Charles F. Whitcomb, and James W. Schmeer. September 1956. 59p. diagrs., tab. (NACA RM L56F15)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS - LONGITUDINAL AND LATERAL STABILITY AND CONTROL. William H. Tolhurst, Jr., and Mark W. Kelly. October 1956. 64p. diagrs., photo., tabs. (NACA RM A56E24)

A LOW-SPEED INVESTIGATION OF A HIGH-LIFT LATERAL-CONTROL DEVICE CONSISTING OF A SPOILER-SLOT-DEFLECTOR AND A TRAILING-EDGE FLAP ON A TAPERED 45° SWEPTBACK WING. Alexander D. Hammond and Jarrett K. Huffman. October 1956. 21p. diagrs. (NACA RM L56H31)

INVESTIGATION OF DEFLECTORS AS GUST ALLEVIATORS ON A 0.09-SCALE MODEL OF THE BELL X-5 AIRPLANE WITH VARIOUS WING SWEEP ANGLES FROM 20° TO 60° AT MACH NUMBERS FROM 0.40 TO 0.90. Delwin R. Croom and Jarrett K. Huffman. November 1957. 28p. diagrs. (NACA TN 4175)

LOW-SUBSONIC INVESTIGATION TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND EFFECTIVENESS OF SPOILERS ON A THIN, LOW-ASPECT-RATIO, UNSWEPT, UNTAPERED, SEMI-SPAN WING AND ON THE WING WITH LEADING- AND TRAILING-EDGE FLAPS. Delwin R. Croom. April 1958. 133p. diagrs., tabs. (NACA RM L58B05)

(1.2.2.4.3) All-Movable

INVESTIGATION OF THE AERODYNAMIC EFFECTS OF AN EXTERNAL STORE IN COMBINATION WITH 60° DELTA AND LOW-ASPECT-RATIO TAPERED WINGS AT A MACH NUMBER OF 1.9. Ellery B. May, Jr. January 9, 1951. 46p. diagrs., photos. (NACA RM L50K03)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH VERTICALLY MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Leonard J. Obery and Howard S. Krasnow. September 1952. 25p. diagrs. (NACA RM E52H08)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

TOTAL-PRESSURE AND SCHLIEREN STUDIES OF THE WAKES OF VARIOUS CANARD CONTROL SURFACES MOUNTED ON A MISSILE BODY AT A MACH NUMBER OF 1.93. William B. Boatright. November 1952. 47p. photos., diagrs. (NACA RM L52I29)

LIFT, DRAG, AND HINGE MOMENTS AT SUPERSONIC SPEEDS OF AN ALL-MOVABLE TRIANGULAR WING AND BODY COMBINATION. William C. Drake. September 1953. 38p. diagrs., photos., tabs. (NACA RM A53F22)

COMPONENT TESTS TO DETERMINE THE AERODYNAMIC CHARACTERISTICS OF AN ALL-MOVABLE 70° DELTA CANARD-TYPE CONTROL IN THE PRESENCE OF A BODY AT A MACH NUMBER OF 1.61. M. Leroy Spearman. October 1953. 30p. diagrs., tabs. (NACA RM L53I03)

A METHOD FOR ESTIMATING THE ROLLING MOMENTS CAUSED BY WING-TAIL INTERFERENCE FOR MISSILE AT SUPERSONIC SPEEDS. Sherman Edwards and Katsumi Hikido. November 1953. 68p. diagrs., tabs. (NACA RM A53H18)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

EFFECTS OF LEADING-EDGE CHORD EXTENSIONS AND AN ALL-MOVABLE HORIZONTAL TAIL ON THE AERODYNAMIC CHARACTERISTICS OF A WING-BODY COMBINATION EMPLOYING A TRIANGULAR WING OF ASPECT RATIO 3 MOUNTED IN A HIGH POSITION AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel and Frank A. Pfyl. January 1954. 35p. diagrs., photo., tabs. (NACA RM A53J14a)

AERODYNAMIC CHARACTERISTICS OF A CRUCIFORM-WING MISSILE WITH CANARD CONTROL SURFACES AND OF SOME VERY SMALL SPAN WING-BODY MISSILES AT A MACH NUMBER OF 1.41. M. Leroy Spearman and Ross B. Robinson. April 1954. 27p. diagrs., tabs. (NACA RM L54B11)

WIND-TUNNEL INVESTIGATION AT A MACH NUMBER OF 2.01 OF THE AERODYNAMIC CHARACTERISTICS IN COMBINED PITCH AND SIDESLIP OF SOME CANARD-TYPE MISSILES HAVING CRUCIFORM WINGS AND CANARD SURFACES WITH 70° DELTA PLAN FORMS. M. Leroy Spearman and Cornelius Driver. August 1954. 121p. diagrs., tabs. (NACA RM L54F09)

AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 2.01 OF TWO CRUCIFORM MISSILE CONFIGURATIONS HAVING 70° DELTA WINGS WITH LENGTH-DIAMETER RATIOS OF 14.8 AND 17.7 WITH SEVERAL CANARD CONTROLS. M. Leroy Spearman and Ross B. Robinson. August 1954. 32p. diagrs., tabs. (NACA RM L54G20)

SOME EFFECTS OF AILERON SPAN, AILERON CHORD, AND WING TWIST ON ROLLING EFFECTIVENESS AS DETERMINED BY ROCKET-POWERED MODEL TESTS AND THEORETICAL ESTIMATES. H. Kurt Strass and Warren A. Tucker. September 1954. 29p. diagrs., photos., tabs. (NACA RM L54G13)

FREE-FLIGHT INVESTIGATION, INCLUDING SOME EFFECTS OF WING AEROELASTICITY, OF THE ROLLING EFFECTIVENESS OF AN ALL-MOVABLE HORIZONTAL TAIL WITH DIFFERENTIAL INCIDENCE AT MACH NUMBERS FROM 0.6 TO 1.5. Roland D. English. January 1955. 11p. diagrs., photo. (NACA RM L54K30)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

FREE-FLIGHT INVESTIGATION OF THE CONTROL EFFECTIVENESS OF A DIFFERENTIALLY DEFLECTED HORIZONTAL TAIL AT MACH NUMBERS FROM 0.8 TO 1.6. Jesse L. Mitchell and A. James Vitale. April 1956. 25p. diagrs., photo., tabs. (NACA RM L56B20)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS AT COMBINED ANGLES OF PITCH AND SIDESLIP FOR MACH NUMBER 2.01. Cornelius Driver and Clyde V. Hamilton. April 1956. 67p. diagrs., photo., tabs. (NACA RM L56B21)

LIFT AND CENTER OF PRESSURE OF WING-BODY-TAIL COMBINATIONS AT SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen, and George E. Kaattari. 1957. ii, 70p. diagrs., tabs. (NACA Rept. 1307)

(1.2.2.5)
REYNOLDS NUMBER EFFECTS

A COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF FOUR WING-FUSELAGE CONFIGURATIONS AS DETERMINED FROM DIFFERENT TEST TECHNIQUES. Charles J. Donlan, Boyd C. Myers, II, and Axel T. Mattson. October 4, 1950. 66p. diagrs., photos., tabs. (NACA RM L50H02)

REVIEW OF THE MAXIMUM-LIFT CHARACTERISTICS OF THIN AND SWEPT WINGS. John G. Lowry and Jones F. Cahill. June 5, 1951. 10p. diagrs. (NACA RM L51E03)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 THICKNESS DISTRIBUTION. Charles F. Hall and John C. Heitmeyer. June 12, 1951. 24p. diagrs., photo., tab. (NACA RM A51E01)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION. John C. Heitmeyer and Robert B. Petersen. April 1952. 20p. diagrs., tabs. (NACA RM A52B08)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON SUBSONIC AND TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE MODELS HAVING 45° SWEPTBACK WINGS OF ASPECT RATIO 4. Kenneth W. Goodson and Albert G. Few, Jr. January 1953. 31p. diagrs., photos., tab. (NACA RM L52K21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

DRAG DUE TO LIFT AT MACH NUMBERS UP TO 2.0. Edward C. Polhamus. November 1953. 18p. diagrs. (NACA RM L53I22b)

LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-BODY-TAIL COMBINATION HAVING A WING WITH 45° OF SWEEPBACK AND A TAIL IN VARIOUS VERTICAL POSITIONS. Jack D. Stephenson, Angelo Bandettini, and Ralph Selan. January 1955. 64p. diagrs., photos., tabs. (NACA RM A54K09)

EFFECTS OF INCREASING REYNOLDS NUMBER FROM 2×10^6 TO 6×10^6 ON THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A 45° SWEPT WING WITH 6° LEADING-EDGE DROOP. James W. Schmeer and J. Lawrence Cooper. February 1955. 22p. diagrs., photo. (NACA RM L54L10)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.62. Donald E. Coletti. May 1955. 49p. diagrs., photo., tabs. (NACA RM L55B25)

INVESTIGATION OF THE EFFECTS OF AN AIRFOIL SECTION MODIFICATION ON THE AERODYNAMIC CHARACTERISTICS AT SUBSONIC AND SUPERSONIC SPEEDS OF A THIN SWEPT WING OF ASPECT RATIO 3 IN COMBINATION WITH A BODY. David Graham and William T. Evans. June 1955. 46p. diagrs., tabs. (NACA RM A55D11)

A COMPARISON AT MACH NUMBERS UP TO 0.92 OF THE CALCULATED AND EXPERIMENTAL DOWNWASH AND WAKE CHARACTERISTICS AT VARIOUS HORIZONTAL TAIL HEIGHTS BEHIND A WING WITH 45° OF SWEEPBACK. Jack D. Stephenson, Ralph Selan, and Angelo Bandettini. June 1955. 81p. diagrs., photos., tabs. (NACA RM A55D27a)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPTBACK WINGS INCORPORATING LEADING-EDGE CAMBER AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.00×10^6 AND MACH NUMBERS UP TO 0.290. Gerald V. Foster. October 1955. 44p. diagrs. (NACA RM L55H04)

A STUDY OF CONICAL CAMBER FOR TRIANGULAR AND SWEPTBACK WINGS. John W. Boyd, Eugene Migotsky, and Benton E. Wetzel. November 1955. 79p. diagrs., tabs. (NACA RM A55G19)

EFFECT OF LEADING-EDGE SWEEPBACK ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 AND TAPER RATIO 0.4 AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. November 1955. 22p. diagrs., tabs. (NACA RM A55H04a)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR-WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.94. Donald E. Coletti. December 1955. 52p. diagrs., photo., tabs. (NACA RM L55I14)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF TWO 60° SWEPTBACK WINGS AT HIGH REYNOLDS NUMBERS. William C. Schneider. March 1956. 46p. diagrs. (NACA RM L55L30)

EFFECTS OF REYNOLDS NUMBER AND LEADING-EDGE SHAPE ON THE LOW-SPEED LONGITUDINAL STABILITY OF A 6-PERCENT-THICK 45° SWEPTBACK WING. William C. Schneider. April 1956. 32p. diagrs. (NACA RM L56B14)

DATA FROM LARGE-SCALE LOW-SPEED TESTS OF AIRPLANE CONFIGURATIONS WITH A THIN 45° SWEPT WING INCORPORATING SEVERAL LEADING-EDGE CONTOUR MODIFICATIONS. William T. Evans. May 1956. 110p. diagrs., photo., tabs. (NACA RM A56B17)

THE EFFECT OF CONICAL CAMBER ON THE STATIC LONGITUDINAL, LATERAL, AND DIRECTIONAL CHARACTERISTICS OF A 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. July 1956. 64p. diagrs., tabs. (NACA RM A56D02)

EFFECT OF A FUSELAGE ON THE LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. September 1956. 31p. diagrs., tabs. (NACA RM L56G02)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. I - EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE LONGITUDINAL CHARACTERISTICS. Bruce E. Tinling and Armando E. Lopez. July 1957. 85p. diagrs., photo., tabs. (NACA TN 4041. Supersedes RM A53L15)

EFFECTS OF FIXING BOUNDARY-LAYER TRANSITION FOR AN UNSWEPT-WING MODEL AND AN EVALUATION OF POROUS TUNNEL-WALL INTERFERENCE FOR MACH NUMBERS FROM 0.60 TO 1.40. Louis S. Stivers, Jr., and Garth W. Lippmann. April 1958. 37p. diagrs. (NACA TN 4228)

EFFECTS OF FIXING TRANSITION ON THE TRANSONIC AERODYNAMIC CHARACTERISTICS OF A WING-BODY CONFIGURATION AT REYNOLDS NUMBERS FROM 2.4 TO 12 MILLION. Lynn W. Hunton. July 1958. 56p. diagrs. (NACA TN 4279)

IDEALIZED WINGS AND WING-BODIES AT A MACH NUMBER OF 3. Elliott D. Katzen. July 1958. 11p. diagrs. (NACA TN 4361)

THE STATIC LONGITUDINAL CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. August 1958. 26p. diagrs., tab. (NACA RM A58C21)

THE EFFECTS OF AN INVERSE-TAPER LEADING-EDGE FLAP ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF A WING-BODY COMBINATION HAVING AN ASPECT RATIO OF 3 AND 45° OF SWEEPBACK AT MACH NUMBERS TO 0.92. Fred A. Demele and K. Harmon Powell. August 1958. 57p. diagrs., photo., tabs. (NACA TN 4366)

(1.2.2.6)
MACH NUMBER EFFECTS

SUPERSONIC-TUNNEL TESTS OF TWO SUPERSONIC AIRPLANE MODEL CONFIGURATIONS. Macon C. Ellis, Jr., Lowell E. Hasel, and Carl E. Grigsby. December 31, 1947. 49p. diagrs., photos., tab. (NACA RM L7J15)

RESULTS OBTAINED DURING EXTENSION OF U.S. AIR FORCE TRANSONIC-FLIGHT TESTS OF XS-1 AIRPLANE. Harold R. Goodman and Hubert M. Drake. November 16, 1948. 12p. diagrs. (NACA RM L8I28)

FLIGHT TESTS AT TRANSONIC AND SUPERSONIC SPEEDS OF AN AIRPLANE-LIKE CONFIGURATION WITH THIN STRAIGHT SHARP-EDGE WINGS AND TAIL SURFACES. Clarence L. Gillis and Jesse L. Mitchell. January 5, 1949. 37p. diagrs., photos., tab. (NACA RM L8K04a)

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

THE EFFECTS OF SCALE AND TEST TECHNIQUE ON THE VALIDITY OF SMALL-SCALE MEASUREMENTS OF THE AERODYNAMIC CHARACTERISTICS OF A WING WITH THE LEADING EDGE SWEPT BACK 63°. L. Stewart Rolls. December 9, 1949. 20p. diagrs., photos. (NACA RM A9J06)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - WING AND FUSELAGE PRESSURE DISTRIBUTION. Joseph W. Cleary and Jack A. Mellenthin. June 22, 1950. 61p. diagrs., photos. (NACA RM A50D07)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. DETERMINATION OF THE AERODYNAMIC CENTER AND ZERO-LIFT PITCHING-MOMENT COEFFICIENT OF THE WING-FUSELAGE COMBINATION BY MEANS OF TAIL-LOAD MEASUREMENTS IN THE MACH NUMBER RANGE FROM 0.37 TO 0.87. John P. Mayer, George M. Valentine, and Geraldine C. Mayer. July 11, 1950. 27p. diagrs., photos., tab. (NACA RM L50D10)

A COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF FOUR WING-FUSELAGE CONFIGURATIONS AS DETERMINED FROM DIFFERENT TEST TECHNIQUES Charles J. Donlan, Boyd C. Myers, II, and Axel T Mattson. October 4, 1950. 66p. diagrs., photos., tabs. (NACA RM L50H02)

(1) AERODYNAMICS

PRELIMINARY RESULTS OF THE FLIGHT INVESTIGATION BETWEEN MACH NUMBERS OF 0.80 AND 1.36 OF A ROCKET-POWERED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Homer P. Mason. October 31, 1950. 30p. diagrs., photos., tab. (NACA RM L50H29a)

DETERMINATION OF LONGITUDINAL STABILITY OF THE BELL X-1 AIRPLANE FROM TRANSIENT RESPONSES AT MACH NUMBERS UP TO 1.12 AT LIFT COEFFICIENTS OF 0.3 AND 0.6. Ellwyn E. Angle and Euclid C. Holleman. November 7, 1950. 22p diagrs. (NACA RM L50I06a)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION USING ROCKET-PROPELLED MODELS. PRELIMINARY RESULTS AT MACH NUMBERS FROM 0.65 TO 1.25. Jesse L. Mitchell and Robert F. Peck. December 1, 1950. 30p. diagrs., photos. (NACA RM L50J03)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF WING LOADS AT MACH NUMBERS UP TO 0.87. John P. Mayer, George M. Valentine, and Beverly J. Swanson. December 26, 1950. 35p. diagrs., photos., tab. (NACA RM L50H16)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. FORCE CHARACTERISTICS OF THE COMPLETE CONFIGURATION AND ITS VARIOUS COMPONENTS AT MACH NUMBERS OF 1.40 AND 1.59. Norman F. Smith and Jack E. Marte. January 22, 1951. 55p. diagrs., photos., tab. (NACA RM L50K14)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

REVIEW OF THE MAXIMUM-LIFT CHARACTERISTICS OF THIN AND SWEPT WINGS. John G. Lowry and Jones F. Cahill. June 5, 1951. 10p. diagrs. (NACA RM L51E03)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 THICKNESS DISTRIBUTION. Charles F. Hall and John C. Heitmeyer. June 12, 1951. 24p. diagrs., photo., tab. (NACA RM A51E01)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

BASIC PRESSURE MEASUREMENTS ON A FUSELAGE AND A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT TRANSONIC SPEEDS IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Donald L. Loving and Claude V. Williams. September 1951. 59p. diagrs., photos. (NACA RM L51F05)

WIND-TUNNEL TESTS OF A 1/12-SCALE MODEL OF THE X-3 AIRPLANE AT SUBSONIC AND SUPERSONIC SPEEDS. Robert N. Olson and Robert S. Chubb. September 14, 1951. 111p. diagrs., photo., tabs. (NACA RM A51F12)

FREE-FLIGHT MEASUREMENTS AT MACH NUMBERS FROM 0.7 TO 1.6 OF SOME EFFECTS OF AIRFOIL-THICKNESS DISTRIBUTION AND TRAILING-EDGE ANGLE ON AILERON ROLLING EFFECTIVENESS AND DRAG FOR WINGS WITH 0° AND 45° SWEEPBACK. E. M. Fields and H. Kurt Strass. October 1951. 63p. diagrs., photos., tab. (NACA RM L51G27)

ANALYSIS OF LONGITUDINAL STABILITY AND TRIM OF THE BELL X-1 AIRPLANE AT A LIFT COEFFICIENT OF 0.3 TO MACH NUMBERS NEAR 1.05. Hubert M. Drake, John R. Carden, and Harry P. Clagett. October 1951. 30p. diagrs., photo., tab. (NACA RM L51H01)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF THICKNESS RATIO AND OF THICKENED ROOT SECTIONS ON THE AERODYNAMIC CHARACTERISTICS OF WINGS WITH 47° SWEEPBACK, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat, Daniel E. Harrison, and Domenic A. Coppolino. October 1951. 38p. diagrs., photo., tab. (NACA RM L51I04a)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

SUMMARY OF SOME EFFECTIVE AERODYNAMIC TWISTING-MOMENT COEFFICIENTS OF VARIOUS WING-CONTROL CONFIGURATIONS AT MACH NUMBERS FROM 0.6 TO 1.7 AS DETERMINED FROM ROCKET-POWERED MODELS. H. Kurt Strass. January 1952. 22p. diagrs., photo., 2 tabs. (NACA RM L51K20)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

WING LOAD DISTRIBUTION ON A SWEPT-WING AIRPLANE IN FLIGHT AT MACH NUMBERS UP TO 1.11 AND COMPARISON WITH THEORY. L. Stewart Rolls and Frederick H. Matteson. April 1952. 73p. diagrs., photos., tabs. (NACA RM A52A31)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION. John C. Heitmeyer and Robert B. Petersen. April 1952. 20p. diagrs., tabs. (NACA RM A52B08)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

AERODYNAMIC LOADING CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A WING OF 45° SWEEPBACK MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Donald L. Loving and Claude V. Williams. May 1952. 58p. diagrs., photos., tab. (NACA RM L52B27)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF THREE 4-PERCENT-THICK WINGS OF SWEEPBACK ANGLES 10.8°, 35°, AND 47°, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN COMBINATION WITH A BODY. Ralph P. Bielat. July 1952. 33p. diagrs., photos., tab. (NACA RM L52B08)

PRELIMINARY INVESTIGATION OF THE LOW-AMPLITUDE DAMPING IN PITCH OF TAILLESS DELTA- AND SWEPT-WING CONFIGURATIONS AT MACH NUMBERS FROM 0.7 TO 1.35. Charles T. D'Aiutolo and Robert N. Parker. August 1952. 27p. diagrs., photos., tab. (NACA RM L52G09)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF SPOILER SPAN AND PROJECTION AND WING FLEXIBILITY ON ROLLING EFFECTIVENESS AND DRAG OF PLAIN SPOILERS ON A TAPERED SWEPTBACK WING AT MACH NUMBERS BETWEEN 0.6 AND 1.6. Eugene D. Schult and E. M. Fields. October 1952. 30p. diagrs., photo., tab. (NACA RM L52H06a)

AERODYNAMIC CHARACTERISTICS EXTENDED TO HIGH ANGLES OF ATTACK AT TRANSONIC SPEEDS OF A SMALL-SCALE 0° SWEEP WING, 45° SWEPTBACK WING, AND 60° DELTA WING. Harleth G. Wiley. November 1952. 26p. diagrs. (NACA RM L52I30)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF BODIES MOUNTED FROM THE WING OF AN UNSWEPT-WING-FUSELAGE MODEL, INCLUDING MEASUREMENTS OF BODY LOADS. H. Norman Silvers and Thomas J. King, Jr. November 1952. 37p. diagrs., photos., tabs. (NACA RM L52J08)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON SUBSONIC AND TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE MODELS HAVING 45° SWEPTBACK WINGS OF ASPECT RATIO 4. Kenneth W. Goodson and Albert G. Few, Jr. January 1953. 31p. diagrs., photos., tab. (NACA RM L52K21)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF ASPECT RATIO, SPANWISE VARIATIONS IN SECTION THICKNESS RATIO, AND A BODY INDENTATION ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Melvin M. Carmel. January 1953. 44p. diagrs., tab. (NACA RM L52L26b)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION, AS SPECIFIED BY THE TRANSONIC DRAG-RISE RULE, ON THE AERODYNAMIC CHARACTERISTICS AND FLOW PHENOMENA OF A 45° SWEPTBACK-WING-BODY COMBINATION. Harold L. Robinson. February 1953. 33p. diagrs., photos., tab. (NACA RM L52L12)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

SOME MEASUREMENTS OF THE BUFFET REGION OF A SWEPT-WING RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC MACH NUMBERS. Thomas F. Baker. May 1953. 14p. diagrs., photos., tab. (NACA RM L53D06)

LOADS DUE TO FLAPS AND SPOILERS ON SWEPTBACK WINGS AT SUPERSONIC AND TRANSONIC SPEEDS. Alexander D. Hammond and F. E. West, Jr. June 1953. 17p. diagrs. (NACA RM L53D29a)

THE INFLUENCE OF A CHANGE IN BODY SHAPE ON THE EFFECTS OF TWIST AND CAMBER AS DETERMINED BY A TRANSONIC WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. August 1953. 23p. diagrs., tab. (NACA RM L53B03)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION ON THE AERODYNAMIC CHARACTERISTICS OF AN APPROXIMATE-DELTA-WING-BODY CONFIGURATION, AND A COMPARISON WITH A WING OF REVERSED PLAN FORM. Claude V. Williams. August 1953. 36p. diagrs., photos., tabs. (NACA RM L53F05a)

A ROCKET-MODEL INVESTIGATION OF THE LONGITUDINAL STABILITY, LIFT, AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION WITH HORIZONTAL TAIL OF ASPECT RATIO 4.33. Robert F. Peck and James A. Hollinger. August 1953. 33p. diagrs., photos. (NACA RM L53F19a)

EFFECTS OF LEADING-EDGE SLATS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION AT MACH NUMBERS OF 0.4 TO 1.03. Jack F. Runckel and Seymour Steinberg. August 1953. 50p. diagrs., photos. (NACA RM L53F23)

TRANSONIC FLIGHT MEASUREMENT OF THE AERODYNAMIC LOAD ON THE EXTENDED SLAT OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. James R. Peele. August 1953. 34p. diagrs., photos., tab. (NACA RM L53F29)

INVESTIGATION OF WING FLUTTER AT TRANSONIC SPEEDS FOR SIX SYSTEMATICALLY VARIED WING PLAN FORMS. George W. Jones, Jr., and Hugh C. DuBose. August 1953. 32p. diagrs., photos., 3 tabs. (NACA RM L53G10a)

NOTES ON DAMPING IN ROLL AND LOAD DISTRIBUTIONS IN ROLL AT HIGH ANGLES OF ATTACK AND HIGH SUBSONIC SPEED. Richard E. Kuhn. August 1953. 18p. diagrs., tab. (NACA RM L53G13a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF MODIFICATIONS TO AN INDENTED BODY IN COMBINATION WITH A 45° SWEPTBACK WING. Donald L. Loving. September 1953. 29p. diagrs., photos., tabs. (NACA RM L53F02)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

COMPARISON OF THEORETICAL AND EXPERIMENTAL ZERO-LIFT DRAG-RISE CHARACTERISTICS OF WING-BODY-TAIL COMBINATIONS NEAR THE SPEED OF SOUND. George H. Holdaway. October 1953. 27p. diagrs., tab. (NACA RM A53H17)

SUBSONIC AND SUPERSONIC HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNBALANCED LATERAL CONTROL HAVING LOW THEORETICAL HINGE MOMENTS AT SUPERSONIC SPEEDS. Kenneth L. Goin and William E. Palmer. October 1953. 55p. diagrs., photos. (NACA RM L53G31a)

INVESTIGATION OF THE EFFECT OF SPANWISE POSITIONING OF A VERTICALLY SYMMETRIC OGIVE-CYLINDER NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6 WITH AND WITHOUT A FUSELAGE. H. Norman Silvers and Thomas J. King, Jr. October 1953. 62p. diagrs., tabs. (NACA RM L53H17)

RELATIONSHIP OF FLOW OVER A 45° SWEPTBACK WING WITH AND WITHOUT LEADING-EDGE CHORD-EXTENSIONS TO LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., and James H. Henderson. October 1953. 47p. diagrs., photos. (NACA RM L53H18b)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE HINGE-MOMENT AND NORMAL-FORCE PROPERTIES OF A FULL-SPAN, CONSTANT-CHORD, PARTIALLY BALANCED TRAILING-EDGE CONTROL ON A 60° CLIPPED DELTA WING BETWEEN MACH NUMBERS OF 0.50 AND 1.26. C. William Martz and John W. Goslee. October 1953. 33p. diagrs., photos., tab. (NACA RM L53I04)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

DATA ON SPOILER-TYPE AILERONS. John G. Lowry. October 1953. 27p. diagrs. (NACA RM L53I24a)

AN ENGINEERING METHOD FOR THE DETERMINATION OF AEROELASTIC EFFECTS UPON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPT WINGS. H. Kurt Strass and Emily W. Stephens. November 1953. 82p. diagrs., tabs. (NACA RM L53H14)

SOME MEASUREMENTS OF BUFFETING ENCOUNTERED BY A DOUGLAS D-558-II RESEARCH AIRPLANE IN THE MACH NUMBER RANGE FROM 0.5 TO 0.95. Thomas F. Baker. November 1953. 22p. diagrs., photos., tabs. (NACA RM L53I17)

STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. M. Leroy Spearman. November 1953. 34p. diagrs., tabs. (NACA RM L53I22)

DRAG DUE TO LIFT AT MACH NUMBERS UP TO 2.0. Edward C. Polhamus. November 1953. 18p. diagrs. (NACA RM L53I22b)

AN INVESTIGATION OF THE TRANSONIC AREA RULE BY FLIGHT TESTS OF A SWEPTBACK WING ON A CYLINDRICAL BODY WITH AND WITHOUT BODY INDENTATION BETWEEN MACH NUMBERS 0.9 AND 1.8. Sherwood Hoffman. December 1953. 24p. diagrs., photos., tabs. (NACA RM L53J20a)

EFFECTS OF LEADING-EDGE CHORD EXTENSIONS AND AN ALL-MOVABLE HORIZONTAL TAIL ON THE AERODYNAMIC CHARACTERISTICS OF A WING-BODY COMBINATION EMPLOYING A TRIANGULAR WING OF ASPECT RATIO 3 MOUNTED IN A HIGH POSITION AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel and Frank A. Pfyl. January 1954. 35p. diagrs., photo., tabs. (NACA RM A53J14a)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING A 45° SWEPT WING OF ASPECT RATIO 6.0. John C. McFall, Jr. January 1954. 34p. diagrs., photos. (NACA RM L53G22a)

DETERMINATION OF LONGITUDINAL STABILITY IN SUPERSONIC ACCELERATED MANEUVERS FOR THE DOUGLAS D-558-II RESEARCH AIRPLANE. Herman O. Ankenbruck. February 1954. 29p. diagrs., photos., tab. (NACA RM L53J20)

MEASURED DATA PERTAINING TO BUFFETING AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas F. Baker. February 1954. 16p. diagrs., photos., tab. (NACA RM L53L10)

EFFECT OF WING SLATS AND INBOARD WING FENCES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS. Jack Fischel. February 1954. 125p. diagrs., photos., tabs. (NACA RM L53L16)

EFFECT OF NOSE SHAPE AND TRAILING-EDGE BLUNTNESS ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT WING OF ASPECT RATIO 3.1, TAPER RATIO 0.4, AND 3-PERCENT THICKNESS. John C. Heitmeyer. March 1954. 36p. diagrs., tabs. (NACA RM A54A04)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION FOR BOATTAIL AND CYLINDRICAL AFTERBODY SHAPES ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT-WING—BODY COMBINATION. Thomas C. Kelly. March 1954. 22p. diagrs., tab. (NACA RM L54A08)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO, BODY INDENTATION, FIXED TRANSITION, AND AFTERBODY SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Francis G. Morgan, Jr., and Melvin M. Carmel. March 1954. 37p. diagrs., tab. (NACA RM L54A15)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A 52.5° DELTA WING AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. March 1954. 31p. diagrs., photos. (NACA RM L54A20)

THE EFFECT OF A CHANGE IN BODY SHAPE ON THE LOADING OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. April 1954. 67p. diagrs., photo. (NACA RM L54B09)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF FINNED AND UNFINNED BODIES MOUNTED AT VARIOUS LOCATIONS FROM THE WINGS OF UNSWEPT, AND SWEPT-WING—FUSELAGE MODELS, INCLUDING MEASUREMENTS OF BODY LOADS. William J. Alford, Jr., and H. Norman Silvers. April 1954. 93p. diagrs., photos., tabs. (NACA RM L54B18)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF ADDING VARIOUS COMBINATIONS OF MISSILES ON THE AERODYNAMIC CHARACTERISTICS OF SWEPTBACK AND UNSWEPT WINGS COMBINED WITH A FUSELAGE. H. Norman Silvers and William J. Alford, Jr. June 1954. 39p. diagrs., photo., tabs. (NACA RM L54D20)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF TAILLESS DELTA-WING—BODY COMBINATIONS AT MACH NUMBERS FROM 0.80 TO 1.35 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. June 1954. 34p. diagrs., photos., tab. (NACA RM L54D29)

THE EFFECT OF CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Harold L. Robinson. June 1954. 14p. diagrs., photo. (NACA RM L54E11)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

AN EXPERIMENTAL INVESTIGATION OF REDUCTION IN TRANSONIC DRAG RISE AT ZERO LIFT BY THE ADDITION OF VOLUME TO THE FUSELAGE OF A WING-BODY-TAIL CONFIGURATION AND A COMPARISON WITH THEORY. George H. Holdaway. August 1954. 35p. diagrs., photos., tabs. (NACA RM A54F22)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE OBTAINED IN EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Jack Nugent. August 1954. 20p. diagrs., photo., tab. (NACA RM L54F03)

INVESTIGATION OF THE EFFECT OF INDENTATION ON AN M-PLAN-FORM-WING–BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. August 1954. 24p. diagrs., photos., tab. (NACA RM L54F14)

EFFECTS OF OVERHANG BALANCE ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT TRANSONIC AND SUPERSONIC SPEEDS. Lawrence D. Guy. September 1954. 48p. diagrs., photo. (NACA RM L54G12a)

SOME EFFECTS OF AILERON SPAN, AILERON CHORD, AND WING TWIST ON ROLLING EFFECTIVENESS AS DETERMINED BY ROCKET-POWERED MODEL TESTS AND THEORETICAL ESTIMATES. H. Kurt Strass and Warren A. Tucker. September 1954. 29p. diagrs., photos., tabs. (NACA RM L54G13)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A DIAMOND-PLAN-FORM WING OF ASPECT RATIO 3.08 AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1954. 37p. diagrs., photos. (NACA RM L54G27a)

WING PRESSURE DISTRIBUTIONS AT LOW LIFT FOR THE XF-92A DELTA-WING AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener. October 1954. 54p. diagrs., photos., tabs. (NACA RM H54H06)

LONGITUDINAL STABILITY CHARACTERISTICS IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE EQUIPPED WITH A LEADING-EDGE WING CHORD-EXTENSION. Jack Fischel and Cyril D. Brunn. October 1954. 62p. diagrs., photos., tab. (NACA RM H54H16)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND OPERATING CHARACTERISTICS OF A BELLOWS-ACTUATED SPLIT-FLAP AILERON ON A 60° DELTA WING AT MACH NUMBERS BETWEEN 0.8 AND 1.8. Eugene D. Schult. October 1954. 33p. diagrs., photos. (NACA RM L54H17)

AN INVESTIGATION OF THE EFFECTS OF A GEOMETRIC TWIST ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Claude V. Williams. October 1954. 87p. diagrs., photos., tabs. (NACA RM L54H18)

DETERMINATION OF LONGITUDINAL HANDLING QUALITIES OF THE D-558-II RESEARCH AIRPLANE AT TRANSONIC AND SUPERSONIC SPEEDS TO A MACH NUMBER OF ABOUT 2.0. Herman O. Ankenbruck. November 1954. 25p. diagrs., photos., tab. (NACA RM H54G29a)

A FLIGHT INVESTIGATION OF THE TRANSONIC AREA RULE FOR A 52.5° SWEPTBACK WING-BODY CONFIGURATION AT MACH NUMBERS BETWEEN 0.8 AND 1.6. Sherwood Hoffman. November 1954. 25p. diagrs., photos., tab. (NACA RM L54H13a)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A CANARD CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AND NACA 65A009 AIRFOIL SECTION. A. James Vitale and John C. McFall, Jr. November 1954. 24p. diagrs., photos., tab. (NACA RM L54I01)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF FOUR TAILLESS SWEPT WING-BODY COMBINATIONS AT MACH NUMBERS FROM 0.85 TO 1.30 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. November 1954. 34p. diagrs., photos., tab. (NACA RM L54I10)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS AND SMALL ANGLES OF ATTACK OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 3 WITH AN NACA 64A006 AIRFOIL SECTION. George H. Holdaway. January 1955. 32p. diagrs., photo., tab. (NACA RM A54I17)

EFFECT OF TAPER RATIO ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 WITH 53.1° SWEEPBACK OF LEADING EDGE AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. January 1955. 25p. diagrs., photo., tabs. (NACA RM A54J20)

LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-BODY-TAIL COMBINATION HAVING A WING WITH 45° OF SWEEPBACK AND A TAIL IN VARIOUS VERTICAL POSITIONS. Jack D. Stephenson, Angelo Bandettini, and Ralph Selan. January 1955. 64p. diagrs., photos., tabs. (NACA RM A54K09)

ROLLING PERFORMANCE OF THE REPUBLIC YF-84F AIRPLANE AS MEASURED IN FLIGHT. John B. McKay. January 1955. 24p. diagrs., photo., tab. (NACA RM H54G20a)

EFFECTS OF BODY INDENTATION ON THE DRAG CHARACTERISTICS OF A DELTA-WING–BODY COMBINATION AT TRANSONIC SPEEDS. Dewey E. Wornom and Robert S. Osborne. January 1955. 32p. diagrs., photos., tabs. (NACA RM L54K12a)

EFFECTS OF INCREASING REYNOLDS NUMBER FROM 2×10^6 TO 6×10^6 ON THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A 45° SWEPT WING WITH 6° LEADING-EDGE DROOP. James W. Schmeer and J. Lawrence Cooper February 1955. 22p. diagrs., photo. (NACA RM L54L10)

INVESTIGATION OF THE LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION AT MACH NUMBERS FROM 0.6 TO 1.1 BY MEANS OF A ROCKET-PROPELLED MODEL. Jesse L. Mitchell and Robert F. Peck. February 1955. 37p. diagrs., photo., tabs. (NACA RM L54L20)

EFFECTS OF TAPER RATIO ON THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS FROM 0.6 TO 1.4 OF A WING-BODY-TAIL COMBINATION HAVING AN UNSWEPT WING OF ASPECT RATIO 3. James L. Summers, Stuart L. Treon, and Lawrence A. Graham. March 1955. 45p. diagrs., photo. (NACA RM A54L20)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Loren G. Bright. March 1955. 40p. diagrs., photos., tabs. (NACA RM A54L27)

EFFECTS OF SWEEP AND TAPER RATIO ON THE LONGITUDINAL CHARACTERISTICS OF AN ASPECT RATIO 3 WING-BODY COMBINATION AT MACH NUMBERS FROM 0.6 TO 1.4. Earl D. Knechtel and James L. Summers. March 1955. 36p. diagrs., photo. (NACA RM A55A03)

WING-LOAD MEASUREMENTS AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Glenn H. Robinson, George E. Cothren, Jr., and Chris Pembo. March 1955. 20p. diagrs., photos., tab. (NACA RM H54L27)

THE ROLLING MOMENT DUE TO SIDESLIP OF SWEPT WINGS AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and William C. Sleeman, Jr. March 1955. 81p. diagrs., photos., tabs. (NACA RM L54L01)

FREE-FLIGHT INVESTIGATION TO DETERMINE SOME EFFECTS OF TAIL DAMPING AND WING-TAIL INTERFERENCE ON THE ROLLING EFFECTIVENESS OF INBOARD AND OUTBOARD AILERONS ON AN UNTAPERED SWEPTBACK WING. Roland D. English. March 1955. 18p. diagrs., photos. (NACA RM L54L17a)

AN EXPERIMENTAL INVESTIGATION OF TWO METHODS FOR REDUCING TRANSONIC DRAG OF SWEPT-WING AND BODY COMBINATIONS. John B. McDevitt. April 1955. 27p. diagrs., photos. (NACA RM A55B21)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO AND BODY INDENTATION ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING IN THE PRESENCE OF A BODY. James B. Delano and John P. Mugler, Jr. April 1955. 53p. diagrs., photos., tab. (NACA RM L54L28)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF SWEEPBACK AND THICKNESS RATIO ON THE WING LOADS OF A WING-BODY COMBINATION OF ASPECT RATIO 4 AND TAPER RATIO 0.6. Robert J. Platt, Jr., and Joseph D. Brooks. April 1955. 44p. diagrs., photos., tab. (NACA RM L54L31b)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO DELTA WINGS AND ONE CLIPPED-TIP DELTA WING OF 4 PERCENT THICKNESS ON A SLENDER BODY. William E. Palmer and Dale L. Burrows. April 1955. 31p. diagrs., photo. (NACA RM L55A07a)

LATERAL STABILITY CHARACTERISTICS AT LOW LIFT BETWEEN MACH NUMBERS OF 0.85 AND 1.15 OF A ROCKET-PROPELLED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Allen B. Henning. April 1955. 50p. diagrs., photos., tabs. (NACA RM L55A31)

EFFECTS OF A DETACHED TAB ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT MACH NUMBERS FROM 0.75 TO 1.96. Odell A. Morris and Gertrude C. Westrick. April 1955. 36p. diagrs., photo. (NACA RM L55B15)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF AN AILERON LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. May 1955. 59p. diagrs., photo., tabs. (NACA RM L55B18a)

INVESTIGATION OF THE EFFECTS OF AN AIRFOIL SECTION MODIFICATION ON THE AERODYNAMIC CHARACTERISTICS AT SUBSONIC AND SUPERSONIC SPEEDS OF A THIN SWEPT WING OF ASPECT RATIO 3 IN COMBINATION WITH A BODY. David Graham and William T. Evans. June 1955. 46p. diagrs., tabs. (NACA RM A55D11)

A COMPARISON AT MACH NUMBERS UP TO 0.92 OF THE CALCULATED AND EXPERIMENTAL DOWNWASH AND WAKE CHARACTERISTICS AT VARIOUS HORIZONTAL TAIL HEIGHTS BEHIND A WING WITH 45° OF SWEEPBACK. Jack D. Stephenson, Ralph Selan, and Angelo Bandettini. June 1955. 81p. diagrs., photos., tabs. (NACA RM A55D27a)

EXPERIMENTAL FLUTTER RESULTS FOR CANTILEVER-WING MODELS AT MACH NUMBERS UP TO 3.0. W. J. Tuovila and John Locke McCarty. June 1955. 13p. diagrs., tab. (NACA RM L55E11)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

ADDITIONAL COMPARISONS BETWEEN COMPUTED AND MEASURED TRANSONIC DRAG-RISE COEFFICIENTS AT ZERO LIFT FOR WING-BODY-TAIL CONFIGURATIONS. George H. Holdaway. August 1955. 43p. diagrs., photo., tabs. (NACA RM A55F06)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL CHARACTERISTICS OF A 3-PERCENT-THICK, ASPECT-RATIO-3, DELTA WING CAMBERED AND TWISTED FOR HIGH LIFT-DRAG RATIOS. Dale L. Burrows and Warren A. Tucker. August 1955. 38p. diagrs., photos., tab. (NACA RM L55F02a)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 2. Maurice D. White. September 1955. 39p. diagrs., photo., tabs. (NACA RM A55F21)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

LONGITUDINAL CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING A 60° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Robert F. Peck and Lucille C. Coltrane. September 1955. 33p. diagrs., photo., tabs. (NACA RM L55F27)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A 60° DELTA WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. John P. Mugler, Jr. September 1955. 30p. diagrs., photos., tab. (NACA RM L55G11)

FREE-FLIGHT INVESTIGATION TO OBTAIN DRAG-AT-LIFT AND STABILITY DATA FOR A 60° DELTA-WING–BODY CONFIGURATION OVER A MACH NUMBER RANGE OF 1.3 TO 1.6. Clement J. Welsh. October 1955. 23p. diagrs., photo., tab. (NACA RM L55G14)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPT-BACK WINGS INCORPORATING LEADING-EDGE CAMBER AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.00×10^6 AND MACH NUMBERS UP TO 0.290. Gerald V. Foster. October 1955. 44p. diagrs. (NACA RM L55H04)

A STUDY OF CONICAL CAMBER FOR TRIANGULAR AND SWEPTBACK WINGS. John W. Boyd, Eugene Migotsky, and Benton E. Wetzel. November 1955. 79p. diagrs., tabs. (NACA RM A55G19)

EFFECT OF LEADING-EDGE SWEEPBACK ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 AND TAPER RATIO 0.4 AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. November 1955. 22p. diagrs., tabs. (NACA RM A55H04a)

AERODYNAMIC LOADS ON AN EXTERNAL STORE ADJACENT TO A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.70 TO 1.96, INCLUDING AN EVALUATION OF TECHNIQUES USED. Lawrence D. Guy and William M. Hadaway. November 1955. 109p. diagrs., photo., tab. (NACA RM L55H12)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON AN 80° DELTA-WING MISSILE. Thomas R. Turner and Raymond D. Vogler. November 1955. 32p. diagrs. (NACA RM L55H22)

THE EFFECT OF LEADING-EDGE DROOP UPON THE PRESSURE DISTRIBUTION AND AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPT-BACK WING AT TRANSONIC SPEEDS. James W. Schmeer. November 1955. 42p. diagrs., photos. (NACA RM L55I16)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL HAVING CROPPED-DELTA AND UNSWEPT WING PLAN FORMS AND SEVERAL TAIL CONFIGURATIONS. Albert G. Few, Jr. November 1955. 107p. diagrs., photo., tab. (NACA RM L55I23a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF INCIDENCE AND BODY INDENTATION ON THE WING LOADS OF A 45° SWEPT-BACK WING-BODY COMBINATION. Robert J. Platt, Jr. January 1956. 24p. diagrs., photos., tab. (NACA RM L55H26)

AERODYNAMICS OF BODIES, WINGS, AND WING-BODY COMBINATIONS AT HIGH ANGLES OF ATTACK AND SUPERSONIC SPEEDS. Jack N. Nielsen, J. Richard Spahr, and Frank Centolanzi. February 1956. 12p. diagrs. (NACA RM A55L13c)

AN INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC MACH NUMBERS OF A SWEPT-WING SUPERSONIC BOMBER CONFIGURATION. Ralph P. Bielat and J. Lawrence Cooper. February 1956. 92p. diagrs., photos., tabs. (NACA RM L53F05)

SOME EFFECTS OF SWEEP AND THICKNESS ON THE EXPERIMENTAL DOWNWASH CHARACTERISTICS AT TRANSONIC SPEEDS OF A SERIES OF HIGHLY TAPERED WINGS WITH AN ASPECT RATIO OF 3. TRANSONIC-BUMP METHOD. Albert G. Few, Jr. February 1956. 65p. diagrs., photo. (NACA RM L55J12)

PRELIMINARY FREE-FLIGHT STUDY OF THE DRAG AND STABILITY OF A SERIES OF SHORT-SPAN MISSILES AT MACH NUMBERS FROM 0.9 TO 1.3. James Rudyard Hall. February 1956. 14p. diagrs., photo. (NACA RM L55J13)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A HIGHLY TAPERED UNSWEPT WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. Joseph D. Brooks. February 1956. 30p. diagrs., photos., tab. (NACA RM L55J20)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF FUSELAGE CROSS-SECTION SHAPE AND WING HEIGHT ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL HAVING A 45° SWEPT WING. Thomas J. King, Jr. February 1956. 61p. diagrs., photo. (NACA RM L55J25)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Raymond D. Vogler and Thomas R. Turner. February 1956. 17p. diagrs. (NACA RM L55K09)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEED OF THE ROLLING STABILITY DERIVATIVES OF A COMPLETE MODEL HAVING A CLIPPED-DELTA WING AND A HIGH HORIZONTAL TAIL. William C. Sleeman, Jr., and Albert G. Few, Jr. February 1956. 32p. diagrs., tab. (NACA RM L55K11)

LONGITUDINAL STABILITY INVESTIGATION FOR A MACH NUMBER RANGE OF 0.8 TO 1.7 OF AN AIRPLANE CONFIGURATION WITH A 45° SWEPT WING AND A LOW HORIZONTAL TAIL. John C. McFall, Jr. February 1956. 32p. diagrs., photos., tab. (NACA RM L55L09)

RESULTS OF ROCKET MODEL TEST OF AN AIRPLANE CONFIGURATION HAVING AN ARROW WING AND SLENDER FLAT-SIDED FUSELAGE. LIFT, DRAG, LONGITUDINAL STABILITY, LATERAL FORCE, AND JET EFFECTS AT MACH NUMBERS BETWEEN 1.0 AND 2.3. Robert F. Peck. February 1956. 26p. diagrs., photo. (NACA RM L55L29)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF TWO 60° SWEPTBACK WINGS AT HIGH REYNOLDS NUMBERS. William C. Schneider. March 1956. 46p. diagrs. (NACA RM L55L30)

EXPERIMENTAL RESULTS FROM A TEST IN ROUGH AIR AT HIGH SUBSONIC SPEEDS OF A TAILLESS ROCKET MODEL HAVING CRUCIFORM TRIANGULAR WINGS, AND A NOTE ON THE CALCULATION OF MEAN SQUARE LOADS OF AIRCRAFT IN CONTINUOUS ROUGH AIR. A. James Vitale and Jesse L. Mitchell. April 1956. 25p. diagrs., photo., tab. (NACA RM L55L28)

AN EXPERIMENTAL STUDY AT HIGH SUBSONIC SPEEDS OF SEVERAL TAIL CONFIGURATIONS ON A MODEL WITH AN UNSWEPT WING. William C. Sleeman, Jr. April 1956. 67p. diagrs., photos. (NACA RM L56A06a)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF HORIZONTAL-TAIL LOCATION ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING A SWEPTBACK WING IN A HIGH LOCATION. H. Norman Silvers and Thomas J. King, Jr. April 1956. 46p. diagrs., tab. (NACA RM L56B10)

EFFECTS OF REYNOLDS NUMBER AND LEADING-EDGE SHAPE ON THE LOW-SPEED LONGITUDINAL STABILITY OF A 6-PERCENT-THICK 45° SWEPTBACK WING. William C. Schneider. April 1956. 32p. diagrs. (NACA RM L56B14)

AERODYNAMIC DAMPING AT MACH NUMBERS OF 1.3 AND 1.6 OF A CONTROL SURFACE ON A TWO-DIMENSIONAL WING BY THE FREE-OSCILLATION METHOD. W. J. Tuovila and Robert W. Hess. May 1956. 21p. diagrs., tabs. (NACA RM L56A26a)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE SUBSONIC AND TRANSONIC LONGITUDINAL HANDLING QUALITIES OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. June 1956. 57p. diagrs., photos., tabs. (NACA RM H56C30)

THE EFFECT OF CONICAL CAMBER ON THE STATIC LONGITUDINAL, LATERAL, AND DIRECTIONAL CHARACTERISTICS OF A 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. July 1956. 64p. diagrs., tabs. (NACA RM A56D02)

EFFECT OF WING SIZE AND AMOUNT OF INDENTATION ON APPLICABILITY OF TRANSONIC AREA RULE TO SWEPT-WING CONFIGURATIONS. James Rudyard Hall. July 1956. 33p. diagrs., photos., tabs. (NACA RM L55F03)

RESULTS FROM AN INVESTIGATION IN ROUGH AIR AT MACH NUMBERS FROM 0.84 TO 1.67 OF A TAILLESS ROCKET MODEL HAVING 60° TRIANGULAR WINGS. A. James Vitale. July 1956. 16p. diagrs., photo., tab. (NACA RM L56F07a)

THE VARIATION WITH WING ASPECT RATIO OF FLAP EFFECTIVENESS ON THIN RECTANGULAR WINGS AT TRANSONIC SPEEDS. John G. Lowry and Robert T. Taylor. August 1956. 60p. diagrs., tabs. (NACA RM L56E18)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING THICKNESS ON THE STATIC LONGITUDINAL AND LATERAL STABILITY OF UNSWEPT WINGS OF ASPECT RATIO 3 AT HIGH SUBSONIC SPEEDS. William C. Hayes, Jr., and Edward C. Polhamus. August 1956. 43p. diagrs., photos. (NACA RM L56E30a)

HINGE MOMENT AND EFFECTIVENESS OF AN UNSWEPT CONSTANT-CHORD CONTROL AND AN OVERHANG-BALANCED, SWEPT HINGE-LINE CONTROL ON AN 80° SWEPT POINTED WING AT MACH NUMBERS FROM 0.75 TO 1.96. Lawrence D. Guy. August 1956. 39p. diagrs., photo. (NACA RM L56F11)

WIND-TUNNEL INVESTIGATION OF DAMPING IN ROLL AT SUPERSONIC SPEEDS OF TRIANGULAR WINGS AT ANGLES OF ATTACK. Russell W McDearmon and Robert A. Jones. September 1956. 32p. diagrs., photos., tab. (NACA RM L56F13a)

INVESTIGATION OF SPOILER-SLOT-DEFLECTOR AILERONS AND OTHER SPOILER AILERONS ON A 45° SWEPTBACK-WING–FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., Charles F. Whitcomb, and James W. Schmeer. September 1956. 59p. diagrs., tab. (NACA RM L56F15)

(1) AERODYNAMICS

TRANSONIC WIND-TUNNEL INVESTIGATION OF STATIC LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO WING-BODY COMBINATIONS WITH CLIPPED-TIP AND FULL DELTA WINGS OF ASPECT RATIO 1.73. Dale L. Burrows. September 1956. 26p. diagrs. (NACA RM L56F21)

FREE-FLIGHT INVESTIGATION OVER A MACH NUMBER RANGE FROM 0.74 TO 1.43 AT LIFT COEFFICIENTS FROM -0.15 TO 0.75 OF AN AIRPLANE-CONFIGURATION MODEL HAVING A 52.5° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1956. 41p. diagrs., photos. (NACA RM L56G09)

WIND-TUNNEL MEASUREMENTS OF WING BUFFETING ON 1/16-SCALE MODEL OF DOUGLAS D-558-II RESEARCH AIRPLANE. William B. Kemp, Jr., and Thomas J. King, Jr. September 1956. 34p. diagrs., photos., tabs. (NACA RM L56G31)

EXPERIMENTAL HINGE MOMENTS ON FREELY OSCILLATING FLAP-TYPE CONTROL SURFACES. C. William Martz. October 1956. 29p. diagrs., photos., tab. (NACA RM L56G20)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

COMBINED EFFECTS OF WING TAPER RATIO AND LOW HORIZONTAL-TAIL POSITION ON LONGITUDINAL STABILITY OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Stanley H. Spooner. October 1956. 28p. diagrs., tab. (NACA RM L56H24)

WING LOADS AND LOAD DISTRIBUTIONS THROUGHOUT THE LIFT RANGE OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1956. 191p. diagrs., photo., tabs. (NACA RM H56G13)

LIFT-CURVE SLOPES DETERMINED IN FLIGHT ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. December 1956. 49p. diagrs., photos., tabs. (NACA RM L56E21a)

FORCE TEST RESULTS FOR BODY-MOUNTED LATERAL CONTROLS AND SPEED BRAKES ON A 45° SWEPT-WING MODEL AT MACH NUMBERS FROM 0.80 TO 0.98. F. E. West, Jr., and Chris C. Critzos. December 1956. 32p. diagrs., photos., tab. (NACA RM L56I05)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT, HIGHLY TAPERED, THIN WINGS AT TRANSONIC SPEEDS. TRANSONIC-BUMP METHOD. Albert G. Few, Jr., and Paul G. Fournier. January 1957. 57p. diagrs., photo. (NACA RM L56I24)

STATIC LONGITUDINAL CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A COMPLETE AIRPLANE MODEL WITH A HIGHLY TAPERED WING HAVING THE 0.80 CHORD LINE UNSWEPT AND WITH SEVERAL TAIL CONFIGURATIONS. Kenneth W. Goodson. January 1957. 57p. diagrs., photo., tabs. (NACA RM L56J03)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. I - EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE LONGITUDINAL CHARACTERISTICS. Bruce E. Tinling and Armando E. Lopez. July 1957. 85p. diagrs., photo., tabs. (NACA TN 4041. Supersedes RM A53L15)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. III - EFFECTS OF TRAILING-EDGE FLAPS. Bruce E. Tinling and A. V. Karpen. July 1957. 37p. diagrs., photos., tabs. (NACA TN 4043. Supersedes RM A54L07)

COMPRESSIBILITY EFFECTS ON A HOVERING HELICOPTER ROTOR HAVING AN NACA 0018 ROOT AIRFOIL TAPERING TO AN NACA 0012 TIP AIRFOIL. Robert D. Powell, Jr. September 1957. 25p. diagrs. (NACA RM L57F26)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. October 1957. 25p. diagrs., photos. (NACA TN 4174. Supersedes RM L53B25a)

FLIGHT DATA PERTINENT TO BUFFETING AND MAXIMUM NORMAL-FORCE COEFFICIENT OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Thomas F. Baker, James A. Martin, and Betty J. Scott. November 1957. 41p. diagrs., photo., tabs. (NACA RM H57H09)

INVESTIGATION OF DEFLECTORS AS GUST ALLEVIATORS ON A 0.09-SCALE MODEL OF THE BELL X-5 AIRPLANE WITH VARIOUS WING SWEEP ANGLES FROM 20° TO 60° AT MACH NUMBERS FROM 0.40 TO 0.90. Delwin R. Croom and Jarrett K. Huffman. November 1957. 28p. diagrs. (NACA TN 4175)

FLIGHT INVESTIGATION OF THE TRANSONIC LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Jack Fischel, Euclid C. Holleman, and Robert A. Tremant. December 1957. 61p. diagrs., photos., tab. (NACA RM H57I05)

ANALYSIS OF HORIZONTAL-TAIL LOADS IN PITCHING MANEUVERS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr. December 1957. 58p. diagrs., photo., tabs. (NACA TN 4191)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. January 1958. 47p. diagrs., tab. (NACA TN 4185. Supersedes RM L54C26)

EFFECTS OF FIXING BOUNDARY-LAYER TRANSITION FOR AN UNSWEPT-WING MODEL AND AN EVALUATION OF POROUS TUNNEL-WALL INTERFERENCE FOR MACH NUMBERS FROM 0.60 TO 1.40. Louis S. Stivers, Jr., and Garth W. Lippmann. April 1958. 37p. diagrs. (NACA TN 4228)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. May 1958. 45p. diagrs., tabs. (NACA TN 4240. Supersedes RM L53F19)

EFFECTS OF FIXING TRANSITION ON THE TRANSONIC AERODYNAMIC CHARACTERISTICS OF A WING-BODY CONFIGURATION AT REYNOLDS NUMBERS FROM 2.4 TO 12 MILLION. Lynn W. Hunton. July 1958. 56p. diagrs. (NACA TN 4279)

WIND-TUNNEL INVESTIGATION OF THE HIGH-SUBSONIC STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF SEVERAL WING-BODY CONFIGURATIONS DESIGNED FOR HIGH LIFT-DRAG RATIOS AT A MACH NUMBER OF 1.4. Paul G. Fournier. July 1958. 42p. diagrs., photo., tab. (NACA TN 4340)

LOW TIP MACH NUMBER STALL CHARACTERISTICS AND HIGH TIP MACH NUMBER COMPRESSIBILITY EFFECTS ON A HELICOPTER ROTOR HAVING AN NACA 0009 TIP AIRFOIL SECTION. Robert D. Powell, Jr., and Paul J. Carpenter. July 1958. 28p. diagrs. (NACA TN 4355)

THE STATIC LONGITUDINAL CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. August 1958. 26p. diagrs., tab. (NACA RM A58C21)

EXPLORATORY WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF JET FLAPS ON UNSWEPT RECTANGULAR WINGS. Vernard E. Lockwood and Raymond D. Vogler August 1958. 37p. diagrs. (NACA TN 4353)

THE EFFECTS OF AN INVERSE-TAPER LEADING-EDGE FLAP ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF A WING-BODY COMBINATION HAVING AN ASPECT RATIO OF 3 AND 45° OF SWEEPBACK AT MACH NUMBERS TO 0.92. Fred A. Demele and K. Harmon Powell. August 1958. 57p. diagrs., photo., tabs. (NACA TN 4366)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. September 1958. 62p. diagrs., photos., tabs. (NACA TN 4020. Supersedes RM L51E11)

EFFECTS OF COMPRESSIBILITY ON ROTOR HOVERING PERFORMANCE AND SYNTHESIZED BLADE-SECTION CHARACTERISTICS DERIVED FROM MEASURED ROTOR PERFORMANCE OF BLADES HAVING NACA 0015 AIRFOIL TIP SECTIONS. James P. Shivers and Paul J. Carpenter. September 1958. 28p. diagrs. (NACA TN 4356)

LIFT AND PROFILE-DRAG CHARACTERISTICS OF AN NACA 0012 AIRFOIL SECTION AS DERIVED FROM MEASURED HELICOPTER-ROTOR HOVERING PERFORMANCE. Paul J. Carpenter. September 1958. 28p. diagrs., photo. (NACA TN 4357)

(1.2.2.7) WAKE

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

TOTAL-PRESSURE AND SCHLIEREN STUDIES OF THE WAKES OF VARIOUS CANARD CONTROL SURFACES MOUNTED ON A MISSILE BODY AT A MACH NUMBER OF 1.93. William B. Boatright. November 1952. 47p. photos., diagrs. (NACA RM L52I29)

WIND-TUNNEL INVESTIGATION OF THE VORTEX WAKE AND DOWNWASH FIELD BEHIND TRIANGULAR WINGS AND WING-BODY COMBINATIONS AT SUPERSONIC SPEEDS. J. Richard Spahr and Robert R. Dickey. June 1953. 92p. diagrs., photos., tabs. (NACA RM A53D10)

AN ANALYSIS OF PRESSURE STUDIES AND EXPERIMENTAL AND THEORETICAL DOWNWASH AND SIDEWASH BEHIND FIVE POINTED-TIP WINGS AT SUPERSONIC SPEEDS. William B. Boatright. April 1954. ii, 119p. diagrs., photos. (NACA RM L54B10)

FREE-FLIGHT INVESTIGATION TO DETERMINE SOME EFFECTS OF TAIL DAMPING AND WING-TAIL INTERFERENCE ON THE ROLLING EFFECTIVENESS OF INBOARD AND OUTBOARD AILERONS ON AN UNTAPERED SWEPTBACK WING. Roland P. English. March 1955. 18p. diagrs., photos. (NACA RM L54L17a)

(1) AERODYNAMICS

A COMPARISON AT MACH NUMBERS UP TO 0.92 OF THE CALCULATED AND EXPERIMENTAL DOWNWASH AND WAKE CHARACTERISTICS AT VARIOUS HORIZONTAL TAIL HEIGHTS BEHIND A WING WITH 45° OF SWEEPBACK. Jack D. Stephenson, Ralph Selan, and Angelo Bandettini. June 1955. 81p. diagrs., photos., tabs. (NACA RM A55D27a)

SUMMARY AND ANALYSIS OF HORIZONTAL-TAIL CONTRIBUTION TO LONGITUDINAL STABILITY OF SWEPT-WING AIRPLANES AT LOW SPEEDS. Robert H. Neely and Roland F. Griner. August 1955. ii, 133p. diagrs., tabs. (NACA RM L55E23a)

AERODYNAMICS OF BODIES, WINGS, AND WING-BODY COMBINATIONS AT HIGH ANGLES OF ATTACK AND SUPERSONIC SPEEDS. Jack N. Nielsen, J. Richard Spahr, and Frank Centolanzi. February 1956. 12p. diagrs. (NACA RM A55L13c)

SOME EFFECTS OF SWEEP AND THICKNESS ON THE EXPERIMENTAL DOWNWASH CHARACTERISTICS AT TRANSONIC SPEEDS OF A SERIES OF HIGHLY TAPERED WINGS WITH AN ASPECT RATIO OF 3. TRANSONIC-BUMP METHOD. Albert G. Few, Jr. February 1956. 65p. diagrs., photo. (NACA RM L55J12)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

A THEORETICAL STUDY OF THE AERODYNAMICS OF SLENDER CRUCIFORM-WING ARRANGEMENTS AND THEIR WAKES. John R. Spreiter and Alvin H. Sacks. 1957. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1296. Supersedes TN 3528)

LINEARIZED LIFTING-SURFACE AND LIFTING-LINE EVALUATIONS OF SIDEWASH BEHIND ROLLING TRIANGULAR WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt. 1957. ii, 19p. diagrs., photo. (NACA Rept. 1301. Supersedes TN 3609)

DETERMINATION OF VORTEX PATHS BY SERIES EXPANSION TECHNIQUE WITH APPLICATION TO CRUCIFORM WINGS. Alberta Y. Alksne. 1957. iii, 13p. diagrs., photos. (NACA Rept. 1311. Supersedes TN 3670)

INDUCED VELOCITIES NEAR A LIFTING ROTOR WITH NONUNIFORM DISK LOADING. Harry H. Heyson and S. Katzoff. 1957. iii, 88p. diagrs., photos., tab. (NACA Rept. 1319. Supersedes TN 3690; TN 3691)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. 1957. ii, 43p. diagrs., photo., tabs. (NACA Rept. 1327. Supersedes TN 3738)

INVESTIGATION OF DOWNWASH, SIDEWASH, AND MACH NUMBER DISTRIBUTION BEHIND A RECTANGULAR WING AT A MACH NUMBER OF 2.41. David Adamson and William B. Boatright. 1957. ii, 57p. diagrs., photos., tab. (NACA Rept. 1340. Supersedes RM L50G12)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. I - EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE LONGITUDINAL CHARACTERISTICS. Bruce E. Tinling and Armando E. Lopez. July 1957. 85p. diagrs., photo., tabs. (NACA TN 4041. Supersedes RM A53L15)

EXPERIMENTAL INVESTIGATION OF LIFT, DRAG, AND PITCHING MOMENT OF FIVE ANNULAR AIRFOILS. Herman S. Fletcher. October 1957. 25p. diagrs., photos. (NACA TN 4117)

DATA FROM FLOW-FIELD SURVEYS BEHIND A LARGE-SCALE THIN STRAIGHT WING OF ASPECT RATIO 3. William T. Evans. June 1958. 13p. diagrs. (NACA RM A58D17)

(1.2.2.8) BOUNDARY LAYER

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY-LAYER FLOW OVER DEVELOPABLE SURFACES AND WITH PROPORTIONAL MAINSTREAM VELOCITY COMPONENTS. Arthur G. Hansen, Case Institute of Technology. September 1958. (ii), 79p. diagrs. (NACA TM 1437)

SOME NUMERICAL SOLUTIONS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL LAMINAR INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Peggy L. Yohner and Arthur G. Hansen. September 1958. 76p. diagrs., tabs. (NACA TN 4370)

(1.2.2.8.1) Characteristics

EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD DISTRIBUTION OVER A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.60 TO 1.03. Joseph M. Hallissy, Jr., F. E. West, Jr., and George Liner. May 1954. 162p. diagrs., tabs. (NACA RM L54C17a)

EFFECTS OF FIXING TRANSITION ON THE TRANSONIC AERODYNAMIC CHARACTERISTICS OF A WING-BODY CONFIGURATION AT REYNOLDS NUMBERS FROM 2.4 TO 12 MILLION. Lynn W. Hunton. July 1958. 56p. diagrs. (NACA TN 4279)

(1.2.2.8.2) Control

INVESTIGATION OF THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF TRAILING-EDGE FLAPS OF VARIOUS SPANS ON A WING OF 45° SWEEPBACK AND ASPECT RATIO 6. Roy N. Griffin, Jr., and David H. Hickey. June 1956. 64p. diagrs., photo., tabs. (NACA RM A56B27)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING THE LONGITUDINAL CHARACTERISTICS OF A THIN UNSWEPT-WING MODEL EQUIPPED WITH LEADING- AND TRAILING-EDGE FLAPS. David G. Koenig. July 1956. 52p. diagrs., photo., tabs. (NACA RM A56D23)

BLOWING OVER THE FLAPS AND WING LEADING EDGE OF A THIN 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH LEADING-EDGE DEVICES. H. Clyde McLemore and Marvin P. Fink. July 1956. 57p. diagrs., photo. (NACA RM L56E16)

APPLICATION OF AREA SUCTION TO LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 44° SWEPT-WING MODEL. Curt A. Holzhauser, Robert K. Martin, and V. Robert Page. September 1956. 66p. diagrs., photos., tabs. (NACA RM A56F01)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS - LONGITUDINAL AND LATERAL STABILITY AND CONTROL. William H. Tolhurst, Jr., and Mark W. Kelly. October 1956. 64p. diagrs., photo., tabs. (NACA RM A56E24)

WIND-TUNNEL TESTS OF BLOWING BOUNDARY-LAYER CONTROL WITH JET PRESSURE RATIOS UP TO 10 ON THE TRAILING-EDGE FLAPS OF A 35° SWEPTBACK WING AIRPLANE. Mark W. Kelly and Jeffrey H. Tucker. October 1956. 24p. diagrs., photo., tab. (NACA RM A56G19)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH A 45° SWEPTBACK WING OF ASPECT RATIO 2.8 WITH AREA SUCTION APPLIED TO TRAILING-EDGE FLAPS AND WITH SEVERAL WING LEADING-EDGE MODIFICATIONS. David G. Koenig and Kiyoshi Aoyagi. November 1956. 66p. diagrs., photo., tabs. (NACA RM A56H08)

HIGH-PRESSURE BLOWING OVER FLAP AND WING LEADING EDGE OF A THIN LARGE-SCALE 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH A DROOPED NOSE AND A NOSE WITH A RADIUS INCREASE. Marvin P. Fink and H. Clyde McLemore. May 1957. 40p. diagrs., photo. (NACA RM L57D23)

AIR LOAD DISTRIBUTIONS ON A FLAPPED WING RESULTING FROM LEADING-EDGE AND TRAILING-EDGE BLOWING. H. Clyde McLemore. June 1957. 9p. diagrs. (NACA RM L57D23b)

FLIGHT INVESTIGATION OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE EQUIPPED WITH AN AREA-SUCTION EJECTOR FLAP AND VARIOUS WING LEADING-EDGE DEVICES. Seth B. Anderson, Alan E. Faye, Jr., and Robert C. Innis. September 1957. 28p. diagrs., photos., tab. (NACA RM A57G10)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP AND LEADING-EDGE MODIFICATIONS TO IMPROVE THE HIGH-LIFT CHARACTERISTICS OF AN AIRPLANE MODEL WITH A WING OF 45° SWEEP AND ASPECT RATIO 2.8. David G. Koenig and Kiyoshi Aoyagi. November 1957. 46p. diagrs., photo., tabs. (NACA RM A57H21)

WIND-TUNNEL INVESTIGATION OF THE USE OF LEADING-EDGE AND TRAILING-EDGE AREA-SUCTION FLAPS ON A 13-PERCENT-THICK STRAIGHT WING AND FUSELAGE MODEL. Curt A. Holzhauser. January 1958. 26p. diagrs., photo., tabs. (NACA RM A57K01)

LOW-SPEED BOUNDARY-LAYER-CONTROL INVESTIGATION ON A THIN RECTANGULAR SEMI-SPAN WING WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Delwin R. Croom and Thomas R. Turner. January 1958. 213p. diagrs., tabs. (NACA RM L57J15)

SURFACE PRESSURE DISTRIBUTIONS ON A LARGE-SCALE 49° SWEPTBACK WING-BODY-TAIL CONFIGURATION WITH BLOWING APPLIED OVER THE FLAPS AND WING LEADING EDGE. H. Clyde McLemore and Marvin P. Fink. February 1958. 129p. diagrs., photo., tabs. (NACA RM L57K25)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH BLOWING FROM THE SHROUD AHEAD OF THE TRAILING-EDGE FLAPS. William H. Tolhurst, Jr. July 1958. 40p. diagrs., photos., tabs. (NACA TN 4283)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH AN UNSWEPT, ASPECT-RATIO-10 WING, TWO PROPELLERS, AND AREA-SUCTION FLAPS. James A. Weiberg, Roy N. Griffin, Jr., and George L. Florman. September 1958. 76p. diagrs., photos., tab. (NACA TN 4365)

(1.3)
Bodies

WIND-TUNNEL INVESTIGATION OF THE STABILITY OF THE JETTISONABLE NOSE SECTION OF THE XS-2 AIRPLANE. Stanley H. Scher and Roscoe H. Goodwin. October 14, 1948. 19p. diagrs., photos., tabs. (NACA RM L8I14)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. FORCE CHARACTERISTICS OF THE COMPLETE CONFIGURATION AND ITS VARIOUS COMPONENTS AT MACH NUMBERS OF 1.40 AND 1.59. Norman F. Smith and Jack E. Marte. January 22, 1951. 55p. diagrs., photos., tab. (NACA RM L50K14)

BASIC PRESSURE MEASUREMENTS ON A FUSELAGE AND A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT TRANSONIC SPEEDS IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Donald L. Loving and Claude V. Williams. September 1951. 59p. diagrs., photos. (NACA RM L51F05)

FREE-SPINNING TUNNEL INVESTIGATION OF A 1/20-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE. Burton E. Hultz. December 26, 1951. 23p. diagrs., photos., tab. (NACA RM L51K12)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 1.60. Ross B. Robinson and Cornelius Driver. January 1952. 27p. diagrs., photos., tabs. (NACA RM L51K16a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 2.01. Ross B. Robinson. July 1952. 27p. diagrs., photo., tabs. (NACA RM L52E09)

EXPLORATORY ROCKET FLIGHT TESTS TO INVESTIGATE THE USE OF A FREELY SPINNING MONOPLANE TAIL FOR STABILIZING A BODY. Paul E. Purser and Joseph E. Stevens. October 1952. 25p. diagrs., photos., tab. (NACA RM L52I05a)

PRELIMINARY FREE-FLIGHT INVESTIGATION OF THE ZERO-LIFT DRAG PENALTIES OF SEVERAL MISSILE NOSE SHAPES FOR INFRARED SEEKING DEVICES. Robert O. Piland. December 1952. 22p. diagrs., photos. (NACA RM L52F23)

AN INVESTIGATION OF SOME FACTORS AFFECTING THE DRAG OF RELATIVELY LARGE NON-LIFTING BODIES OF REVOLUTION IN A SLOTTED TRANSONIC WIND TUNNEL. Robert E. Pendley and Carroll R. Bryan. January 1953. 52p. diagrs., photos., tabs. (NACA RM L52H22)

INVESTIGATION AT TRANSONIC SPEEDS OF A FORWARD-LOCATED UNDERSLUNG AIR INLET ON A BODY OF REVOLUTION. P. Kenneth Pierpont and John A. Braden. January 1953. 109p. diagrs., photos., tabs. (NACA RM L52K17)

INVESTIGATION OF THE EFFECT OF SPANWISE POSITIONING OF A VERTICALLY SYMMETRIC OGIVE-CYLINDER NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6 WITH AND WITHOUT A FUSELAGE. H. Norman Silvers and Thomas J. King, Jr. October 1953. 62p. diagrs., tabs. (NACA RM L53H17)

ZERO-LIFT DRAG OF SEVERAL CONICAL AND BLUNT NOSE SHAPES OBTAINED IN FREE FLIGHT AT MACH NUMBERS OF 0.7 TO 1.3. Robert O. Piland and Leonard W. Putland. March 1954. 14p. diagrs., photos., tab. (NACA RM L54A27)

FLIGHT MEASUREMENTS OF AVERAGE SKIN-FRICTION COEFFICIENTS ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.0 TO 3.7. J. Dan Loposer and Charles B. Rumsey. August 1954. 32p. diagrs., photos. (NACA RM L54G14)

INVESTIGATION OF SOME WAKE VORTEX CHARACTERISTICS OF AN INCLINED OGIVE-CYLINDER BODY AT MACH NUMBER 1.98. Leland H. Jorgensen and Edward W. Perkins. August 1955. 47p. diagrs., photos., tabs. (NACA RM A55E31)

TRANSONIC WIND-TUNNEL INVESTIGATION OF EFFECTS OF WINDSHIELD SHAPE AND CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF CANOPY-BODY COMBINATIONS. Elden S. Cornette and Harold L. Robinson. September 1955. 55p. diagrs. (NACA RM L55G08)

INFLUENCE OF THE BODY FLOW FIELD ON THE ZERO-LIFT WAVE DRAG OF WING-BODY COMBINATIONS MODIFIED IN ACCORDANCE WITH THE TRANSONIC AREA RULE. William A. Page. February 1956. 26p. diagrs. (NACA RM A55K10)

ACOUSTIC, THRUST, AND DRAG CHARACTERISTICS OF SEVERAL FULL-SCALE NOISE SUPPRESSORS FOR TURBOJET ENGINES. Carl C. Ciepluch, Warren J. North, Willard D. Coles, and Robert J. Antl. April 1958. 48p. diagrs., photos. (NACA TN 4261)

TRANSONIC DRAG OF SEVERAL JET-NOISE SUPPRESSORS. Warren J. North. April 1958. 34p. diagrs., photos. (NACA TN 4269)

(1.3.1) THEORY

INVESTIGATION OF OFF-DESIGN PERFORMANCE OF SHOCK-IN-ROTOR TYPE SUPERSONIC BLADING. Robert C. Graham, John F. Klapproth, and Frank J. Barina. May 7, 1951. 25p. diagrs., photos. (NACA RM E51C22)

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2 x 10^6 TO 15 x 10^6. II - AERODYNAMIC LOAD DISTRIBUTIONS OF SERIES OF FIVE BODIES HAVING CONICAL NOSES AND CYLINDRICAL AFTERBODIES. John R. Jack and Lawrence I. Gould. May 1952. 28p. diagrs., photos., tabs. (NACA RM E52C10)

A PRESSURE-DISTRIBUTION INVESTIGATION OF A FINENESS-RATIO-12.2 PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT M = 1.59 AND ANGLES OF ATTACK UP TO 36°. Morton Cooper, John P. Gapcynski, and Lowell E. Hasel. October 1952. 89p. diagrs., photos., tabs. (NACA RM L52G14a)

INVESTIGATION OF THE DRAG OF VARIOUS AXIALLY SYMMETRIC NOSE SHAPES OF FINENESS RATIO 3 FOR MACH NUMBERS FROM 1.24 TO 3.67. Edward W. Perkins and Leland H. Jorgensen. November 1952. 50p. diagrs., photos. (NACA RM A52H28)

CORRELATION BY THE HYPERSONIC SIMILARITY RULE OF PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR MINIMUM-DRAG NOSE SHAPES AT ZERO ANGLE OF ATTACK. Leland H. Jorgensen. August 1953. 23p. diagrs. (NACA RM A53F12)

INVESTIGATION OF SOME WAKE VORTEX CHARACTERISTICS OF AN INCLINED OGIVE-CYLINDER BODY AT MACH NUMBER 1.98. Leland H. Jorgensen and Edward W. Perkins. August 1955. 47p. diagrs., photos., tabs. (NACA RM A55E31)

FREE-FLIGHT TESTS TO DETERMINE THE POWER-ON AND POWER-OFF PRESSURE DISTRIBUTION AND DRAG OF THE NACA RM-10 RESEARCH VEHICLE AT LARGE REYNOLDS NUMBERS BETWEEN MACH NUMBERS 0.8 AND 3.0. Sherwood Hoffman. September 1955. 55p. diagrs., photos., 3 tabs. (NACA RM L55H02)

BODIES OF REVOLUTION HAVING MINIMUM DRAG AT HIGH SUPERSONIC AIRSPEEDS. A. J. Eggers, Jr., Meyer M. Resnikoff, and David H. Dennis. 1957. ii, 12p. diagrs., photos. (NACA Rept. 1306. Supersedes TN 3666)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. 1957. iii, 29p. diagrs. (NACA Rept. 1318. Supersedes TN 3717)

A SECOND-ORDER SHOCK-EXPANSION METHOD APPLICABLE TO BODIES OF REVOLUTION NEAR ZERO LIFT. Clarence A. Syvertson and David H. Dennis. 1957. ii, 20p. diagrs., tabs. (NACA Rept. 1328. Supersedes TN 3527)

THE MINIMIZATION OF WAVE DRAG FOR WINGS AND BODIES WITH GIVEN BASE AREA OR VOLUME. Max. A. Heaslet. July 1957. 27p. (NACA TN 3289)

A RAPID METHOD FOR PREDICTING ATTACHED-SHOCK SHAPE. Eugene S. Love and Ronald H. Long. October 1957. 34p. diagrs., tab. (NACA TN 4167)

LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT ANGLE OF ATTACK IN A SUPERSONIC STREAM. Eli Reshotko. December 1957. (i), 64p. diagrs., tabs. (NACA TN 4152)

A REEXAMINATION OF THE USE OF SIMPLE CONCEPTS FOR PREDICTING THE SHAPE AND LOCATION OF DETACHED SHOCK WAVES. Eugene S. Love. December 1957. 53p. diagrs. (NACA TN 4170)

EXTREME SPEEDS AND THERMODYNAMIC STATES IN SUPERSONIC FLIGHT. (Extreme Geschwindigkeiten und thermische Zustände beim Überschallflug.) Klaus Oswatitsch. April 1958. 39p. diagrs., tabs. (NACA TM 1434. Translation from Zeitschrift für Flugwissenschaften, v.4, no.3/4, 1956, p.95-108)

EXPERIMENTAL STUDY OF THE EQUIVALENCE OF TRANSONIC FLOW ABOUT SLENDER CONE-CYLINDERS OF CIRCULAR AND ELLIPTIC CROSS SECTION. William A. Page. April 1958. 45p. diagrs., photos., tab. (NACA TN 4233)

A NUMERICAL METHOD FOR EVALUATING WAVE DRAG. Maurice S. Cahn and Walter B. Olstad. June 1958. 13p. diagrs., tabs. (NACA TN 4258)

AERODYNAMIC RESEARCH ON FUSELAGES WITH RECTANGULAR CROSS SECTION. (Aerodynamische Untersuchungen an Rümpfen mit rechteckähnlichem Querschnitt.) K. Maruhn. July 1958. 37p. diagrs. (NACA TM 1414. Translation from Jahrbuch 1942 der deutschen Luftfahrtforschung, p.263-279.)

SECOND-ORDER SLENDER-BODY THEORY - AXISYMMETRIC FLOW. Milton D. Van Dyke. September 1958. (i), 46p. (NACA TN 4281)

A STUDY OF SEVERAL THEORETICAL METHODS FOR COMPUTING THE ZERO-LIFT WAVE DRAG OF A FAMILY OF OPEN-NOSED BODIES OF REVOLUTION IN THE MACH NUMBER RANGE OF 2.0 TO 4.0. Leroy L. Presley and Emmet A. Mossman. September 1958. 61p. diagrs. (NACA TN 4368)

APPROXIMATE METHOD FOR CALCULATION OF LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER ON A CONE AT LARGE ANGLE OF ATTACK IN SUPERSONIC FLOW. William E. Brunk. September 1958. 26p. diagrs., tab. (NACA TN 4380)

(1.3.2)
SHAPE VARIABLES

INVESTIGATION AT MACH NUMBER 1.91 OF SIDE AND BASE PRESSURE DISTRIBUTIONS OVER CONICAL BOATTAILS WITHOUT AND WITH JET FLOW ISSUING FROM BASE. Edgar M. Cortright, Jr., and Albert H. Schroeder. September 1951. 59p. diagrs., photos. (NACA RM E51F26)

FORCES AND MOMENTS ON POINTED AND BLUNT-NOSED BODIES OF REVOLUTION AT MACH NUMBERS FROM 2.75 TO 5.00. David H. Dennis and Bernard E. Cunningham. August 1952. 47p. diagrs., photo., tabs. (NACA RM A52E22)

INVESTIGATION OF THE DRAG OF BLUNT-NOSED BODIES OF REVOLUTION IN FREE FLIGHT AT MACH NUMBERS FROM 0.6 TO 2.3. Harvey A. Wallskog and Roger G. Hart. June 1953. 28p. diagrs., photos., tab. (NACA RM L53D14a)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF SEVERAL SEEKER-NOSE CONFIGURATIONS ON THE LONGITUDINAL CHARACTERISTICS OF A CANARD-TYPE MISSILE AT A MACH NUMBER OF 1.60. A. Warner Robins. October 1953. 25p. diagrs., photos., tabs. (NACA RM L53I18)

THE EFFECT OF NOSE RADIUS AND SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A FUSELAGE AND A WING-FUSELAGE COMBINATION AT ANGLES OF ATTACK. John P. Gapcynski and A. Warner Robins. October 1953. 23p. diagrs. (NACA RM L53I23a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO, BODY INDENTATION, FIXED TRANSITION, AND AFTERBODY SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Francis G. Morgan, Jr., and Melvin M. Carmel. March 1954. 37p. diagrs., tab. (NACA RM L54A15)

AERODYNAMIC CHARACTERISTICS OF TWO FLAT-BOTTOMED BODIES AT MACH NUMBER OF 3.12. John R. Jack and Barry Moskowitz. April 1954. 9p. diagrs. (NACA RM E53L11b)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

OPTIMUM LIFTING BODIES AT HIGH SUPERSONIC AIRSPEEDS. Meyer M. Resnikoff. May 1954. 22p. diagrs., photo. (NACA RM A54B15)

EXPERIMENTAL DATA FOR FOUR FULL-SCALE CONICAL COOLING-AIR EJECTORS. C. C. Ciepluch and D. B. Fenn. November 1954. 41p. diagrs., photo., tab. (NACA RM E54F02)

EXPERIMENTAL INVESTIGATION OF DRAG OF AFTERBODIES WITH EXITING JET AT HIGH SUBSONIC MACH NUMBERS. Reino J. Salmi. November 1954. 28p. diagrs., photos. (NACA RM E54I13)

A METHOD FOR DESIGNING LOW-DRAG NOSE-INLET–BODY COMBINATIONS FOR OPERATION AT MODERATE SUPERSONIC SPEEDS. Robert R. Howell. November 1954. 29p. diagrs., photos., tab. (NACA RM L54I01a)

EFFECTS OF SOME EXTERNAL-STORE MOUNTING ARRANGEMENTS AND STORE SHAPES ON THE BUFFET AND DRAG CHARACTERISTICS OF WING-LESS ROCKET-POWERED MODELS AT MACH NUMBERS FROM 0.7 TO 1.4. Homer P. Mason and Allen B. Henning. December 1954. 45p. diagrs., photos., tabs. (NACA RM L54I20a)

TRANSONIC LONGITUDINAL AERODYNAMIC EFFECTS OF SWEEPING UP THE REAR OF THE FUSELAGE OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING NO HORIZONTAL TAIL. James H. Parks. January 1955. 30p. diagrs., photo. (NACA RM L54K12)

AN EXPERIMENTAL INVESTIGATION OF TWO METHODS FOR REDUCING TRANSONIC DRAG OF SWEPT-WING AND BODY COMBINATIONS. John B. McDevitt. April 1955. 27p. diagrs., photos. (NACA RM A55B21)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO AND BODY INDENTATION ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING IN THE PRESENCE OF A BODY. James B. Delano and John P. Mugler, Jr. April 1955. 53p. diagrs., photos., tab. (NACA RM L54L28)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A 60° DELTA WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. John P. Mugler, Jr. September 1955. 30p. diagrs., photos., tab. (NACA RM L55G11)

EXPERIMENTAL STUDY OF A METHOD OF DESIGNING THE SWEPTBACK-WING–FUSELAGE JUNCTURE TO REDUCE THE DRAG AT MODERATE SUPERSONIC SPEEDS. Robert R. Howell. January 1956. 20p. diagrs., photos., tabs. (NACA RM L55H05a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF INCIDENCE AND BODY INDENTATION ON THE WING LOADS OF A 45° SWEPTBACK WING-BODY COMBINATION. Robert J. Platt, Jr. January 1956. 24p. diagrs., photos., tab. (NACA RM L55H26)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A HIGHLY TAPERED UNSWEPT WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. Joseph D. Brooks. February 1956. 30p. diagrs., photos., tab. (NACA RM L55J20)

EFFECT OF WING SIZE AND AMOUNT OF INDENTATION ON APPLICABILITY OF TRANSONIC AREA RULE TO SWEPT-WING CONFIGURATIONS. James Rudyard Hall. July 1956. 33p. diagrs., photos., tabs. (NACA RM L55F03)

EFFECT OF CAMBER ON THE DRAG OF A BODY OF REVOLUTION. Robert R. Dickey. October 1956. 8p. diagrs., tabs. (NACA RM A56E23)

NONLIFTING WING-BODY COMBINATIONS WITH CERTAIN GEOMETRIC RESTRAINTS HAVING MINIMUM WAVE DRAG AT LOW SUPERSONIC SPEEDS. Harvard Lomax. 1957. ii, 11p. diagrs. (NACA Rept. 1297. Supersedes TN 3667)

STATUS OF SPIN RESEARCH FOR RECENT AIRPLANE DESIGNS. Anshal I. Neihouse, Walter J. Klinar, and Stanley H. Scher. August 1957. ii, 98p. diagrs., photos., tabs. (NACA RM L57F12)

EFFECT OF NOSE SHAPE ON SUBSONIC AERODYNAMIC CHARACTERISTICS OF A BODY OF REVOLUTION HAVING A FINENESS RATIO OF 10.94. Edward C. Polhamus. August 1957. 29p. diagrs. (NACA RM L57F25)

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. October 1957. 61p. diagrs. (NACA TN 4047. Supersedes RM A53D28)

COLLECTION OF ZERO-LIFT DRAG DATA ON BODIES OF REVOLUTION FROM FREE-FLIGHT INVESTIGATIONS. William E. Stoney, Jr. January 1958. 373p. diagrs., tabs. (NACA TN 4201)

BOUNDARY-LAYER TRANSITION ON AN OPEN-NOSE CONE AT MACH 3.1. Paul F. Brinich. February 1958. 11p. diagrs. (NACA TN 4214)

STAGNATION-POINT HEAT TRANSFER TO BLUNT SHAPES IN HYPERSONIC FLIGHT, INCLUDING EFFECTS OF YAW. A. J. Eggers, Jr., C. Frederick Hansen, and Bernard E. Cunningham. April 1958. 54p. diagr. (NACA TN 4229)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF FLAT PLATES AND CYLINDERS IN THE SLIPSTREAM OF A HOVERING ROTOR. John W. McKee and Rodger L. Naeseth. April 1958. 42p. diagrs., photos., tab. (NACA TN 4239)

EFFECT OF FAVORABLE PRESSURE GRADIENTS ON TRANSITION FOR SEVERAL BODIES OF REVOLUTION AT MACH 3.12. John R. Jack. July 1958. 28p. diagrs., photo. (NACA TN 4313)

WIND-TUNNEL INVESTIGATION OF THE HIGH-SUBSONIC STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF SEVERAL WING-BODY CONFIGURATIONS DESIGNED FOR HIGH LIFT-DRAG RATIOS AT A MACH NUMBER OF 1.4. Paul G. Fournier. July 1958. 42p. diagrs., photo., tab. (NACA TN 4340)

(1.3.2.1)
FINENESS RATIO

FORCES AND MOMENTS ON POINTED AND BLUNT-NOSED BODIES OF REVOLUTION AT MACH NUMBERS FROM 2.75 TO 5.00. David H. Dennis and Bernard E. Cunningham. August 1952. 47p. diagrs., photo., tabs. (NACA RM A52E22)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF RECTANGULAR WING AND BODY COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. August 1952. 74p. diagrs., tabs. (NACA RM L52E26)

STABILITY OF BODIES OF REVOLUTION HAVING FINENESS RATIOS SMALLER THAN 1.0 AND HAVING ROUNDED FRONTS AND BLUNT BASES. Stanley H. Scher and James S. Bowman, Jr. January 1953. 23p. diagrs., tabs. (NACA RM L52L08)

INVESTIGATION OF THE DRAG OF BLUNT-NOSED BODIES OF REVOLUTION IN FREE FLIGHT AT MACH NUMBERS FROM 0.6 TO 2.3. Harvey A. Wallskog and Roger G. Hart. June 1953. 28p. diagrs., photos., tab. (NACA RM L53D14a)

CORRELATION BY THE HYPERSONIC SIMILARITY RULE OF PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR MINIMUM-DRAG NOSE SHAPES AT ZERO ANGLE OF ATTACK. Leland H. Jorgensen. August 1953. 23p. diagrs. (NACA RM A53F12)

SOME EXPERIMENTAL EFFECTS OF AFTERBODY SHAPE ON THE ZERO-LIFT DRAG OF BODIES FOR MACH NUMBERS BETWEEN 0.8 AND 1.3. William E. Stoney, Jr. October 1953. 24p. diagrs., photos. (NACA RM L53I01)

A WIND-TUNNEL INVESTIGATION OF THE USE OF SPOILERS FOR OBTAINING STATIC LONGITUDINAL STABILITY OF A CANARD-MISSILE MODEL IN REVERSE FLIGHT. Herman S. Fletcher. June 1954. 15p. diagrs., tab. (NACA RM L54E05)

FREE-FLIGHT DETERMINATION OF FORCE AND STABILITY CHARACTERISTICS OF AN INCLINED BODY OF FINENESS RATIO 16.9 AT A MACH NUMBER OF 1.74. Warren Gillespie, Jr. November 1954. 17p. diagrs., photos., tab. (NACA RM L54G28a)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

A SECOND-ORDER SHOCK-EXPANSION METHOD APPLICABLE TO BODIES OF REVOLUTION NEAR ZERO LIFT. Clarence A. Syvertson and David H. Dennis. 1957. ii, 20p. diagrs., tabs. (NACA Rept. 1328. Supersedes TN 3527)

COLLECTION OF ZERO-LIFT DRAG DATA ON BODIES OF REVOLUTION FROM FREE-FLIGHT INVESTIGATIONS. William E. Stoney, Jr. January 1958. 373p. diagrs., tabs. (NACA TN 4201)

PRESSURE DISTRIBUTIONS AT TRANSONIC SPEEDS FOR PARABOLIC-ARC BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 10, 12, AND 14. Robert A. Taylor and John B. McDevitt. March 1958. 80p. diagrs., photo. (NACA TN 4234)

AN INVESTIGATION OF SUPERSONIC TURBULENT BOUNDARY LAYERS ON SLENDER BODIES OF REVOLUTION IN FREE FLIGHT BY USE OF A MACH-ZEHNDER INTERFEROMETER AND SHADOWGRAPHS. Alvin Seiff and Barbara J. Short. September 1958. 57p. diagrs., photos. (NACA TN 4364)

A STUDY OF SEVERAL THEORETICAL METHODS FOR COMPUTING THE ZERO-LIFT WAVE DRAG OF A FAMILY OF OPEN-NOSED BODIES OF REVOLUTION IN THE MACH NUMBER RANGE OF 2.0 TO 4.0. Leroy L. Presley and Emmet A. Mossman. September 1958. 61p. diagrs. (NACA TN 4368)

(1.3.2.2) CROSS SECTION

EXPERIMENTAL PRESSURE DISTRIBUTION ON AN ASYMMETRICAL NONCONICAL BODY AT MACH NUMBER 1.90. DeMarquis D. Wyatt. February 24, 1949. 58p. diagrs., photos., tabs. (NACA RM E9B03)

COMPARISON OF THEORETICAL AND EXPERIMENTAL ZERO-LIFT DRAG-RISE CHARACTERISTICS OF WING-BODY-TAIL COMBINATIONS NEAR THE SPEED OF SOUND. George H. Holdaway. October 1953. 27p. diagrs., tab. (NACA RM A53H17)

OPTIMUM LIFTING BODIES AT HIGH SUPERSONIC AIRSPEEDS. Meyer M. Resnikoff. May 1954. 22p. diagrs., photo. (NACA RM A54B15)

AN EXPERIMENTAL INVESTIGATION OF REDUCTION IN TRANSONIC DRAG RISE AT ZERO LIFT BY THE ADDITION OF VOLUME TO THE FUSELAGE OF A WING-BODY-TAIL CONFIGURATION AND A COMPARISON WITH THEORY. George H. Holdaway. August 1954. 35p. diagrs., photos., tabs. (NACA RM A54F22)

AN EXPERIMENTAL INVESTIGATION AT A MACH NUMBER OF 2.01 OF THE EFFECTS OF BODY CROSS-SECTION SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF BODIES AND WING-BODY COMBINATIONS. Harry W. Carlson and John P. Gapcynski. July 1955. 29p. diagrs., tabs. (NACA RM L55E23)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF FUSELAGE CROSS-SECTION SHAPE AND WING HEIGHT ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL HAVING A 45° SWEPT WING. Thomas J. King, Jr. February 1956. 61p. diagrs., photo. (NACA RM L55J25)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

ELLIPTIC CONES ALONE AND WITH WINGS AT SUPERSONIC SPEEDS. Leland H. Jorgensen. October 1957. 55p. diagrs., photos. (NACA TN 4045)

EFFECT OF FLOW INCIDENCE AND REYNOLDS NUMBER ON LOW-SPEED AERODYNAMIC CHARACTERISTICS OF SEVERAL NONCIRCULAR CYLINDERS WITH APPLICATIONS TO DIRECTIONAL STABILITY AND SPINNING. Edward C. Polhamus. January 1958. 54p. diagrs., photo., tab. (NACA TN 4176)

AERODYNAMIC RESEARCH ON FUSELAGES WITH RECTANGULAR CROSS SECTION. (Aerodynamische Untersuchungen an Rümpfen mit rechteckähnlichem Querschnitt.) K. Maruhn. July 1958. 37p. diagrs. (NACA TM 1414. Translation from Jahrbuch 1942 der deutschen Luftfahrtforschung, p. 263-279.)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF SPOILER LOCATION, SPOILER SIZE, AND FUSELAGE NOSE SHAPE ON DIRECTIONAL CHARACTERISTICS OF A MODEL OF A TANDEM-ROTOR HELICOPTER FUSELAGE. James L. Williams. July 1958. 44p. diagrs., photos., tab. (NACA TN 4305)

FORCE AND PRESSURE MEASUREMENTS AT TRANSONIC SPEEDS FOR SEVERAL BODIES HAVING ELLIPTICAL CROSS SECTIONS. John B. McDevitt and Robert A. Taylor. September 1958. 152p. diagrs., photo., tab. (NACA TN 4362)

(1.3.2.3) THICKNESS DISTRIBUTION

INVESTIGATION OF THE DRAG OF VARIOUS AXIALLY SYMMETRIC NOSE SHAPES OF FINENESS RATIO 3 FOR MACH NUMBERS FROM 1.24 TO 3.67. Edward W. Perkins and Leland H. Jorgensen. November 1952. 50p. diagrs., photos. (NACA RM A52H28)

INVESTIGATION OF THE DRAG OF BLUNT-NOSED BODIES OF REVOLUTION IN FREE FLIGHT AT MACH NUMBERS FROM 0.6 TO 2.3. Harvey A. Wallskog and Roger G. Hart. June 1953. 28p. diagrs., photos., tab. (NACA RM L53D14a)

CORRELATION BY THE HYPERSONIC SIMILARITY RULE OF PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR MINIMUM-DRAG NOSE SHAPES AT ZERO ANGLE OF ATTACK. Leland H. Jorgensen. August 1953. 23p. diagrs. (NACA RM A53F12)

SOME EXPERIMENTAL EFFECTS OF AFTERBODY SHAPE ON THE ZERO-LIFT DRAG OF BODIES FOR MACH NUMBERS BETWEEN 0.8 AND 1.3. William E. Stoney, Jr. October 1953. 24p. diagrs., photos. (NACA RM L53I01)

TRANSONIC DRAG MEASUREMENTS OF EIGHT BODY-NOSE SHAPES. William E. Stoney, Jr. February 1954. 14p. diagrs., photos. (NACA RM L53K17)

OPTIMUM LIFTING BODIES AT HIGH SUPERSONIC AIRSPEEDS. Meyer M. Resnikoff. May 1954. 22p. diagrs., photo. (NACA RM A54B15)

INVESTIGATION OF THE EFFECTS OF BODY INDENTATION AND OF WING-PLAN-FORM MODIFICATION ON THE LONGITUDINAL CHARACTERISTICS OF A 60° SWEPT-WING–BODY COMBINATION AT MACH NUMBERS OF 1.41, 1.61, AND 2.01. John R. Sevier, Jr. July 1955. 37p. diagrs., tab. (NACA RM L55E17)

THEORETICAL CALCULATIONS OF SUPERSONIC WAVE DRAG AT ZERO LIFT FOR A PARTICULAR STORE ARRANGEMENT. Kenneth Margolis, Frank S. Malvestuto, Jr., and Peter J. Maxie, Jr. January 1958. 37p. diagrs., tab. (NACA TN 4120)

PRESSURE DISTRIBUTIONS AT TRANSONIC SPEEDS FOR SLENDER BODIES HAVING VARIOUS AXIAL LOCATIONS OF MAXIMUM DIAMETER. John B. McDevitt and Robert A. Taylor. July 1958. 112p. diagrs., photo. (NACA TN 4280)

(1.3.2.4) SURFACE CONDITIONS

MEASUREMENTS OF AERODYNAMIC HEATING OBTAINED DURING DEMONSTRATION FLIGHT TESTS OF THE DOUGLAS D-558-II AIRPLANE. Ira P. Jones, Jr. November 1952. 19p. diagrs., photo., tab. (NACA RM L52I26a)

EXPLORATORY INVESTIGATION OF TRANSPIRATION COOLING TO ALLEVIATE AERODYNAMIC HEATING ON AN 8° CONE IN A FREE JET AT A MACH NUMBER OF 2.05. William J. O'Sullivan, Leo T. Chauvin, and Charles B. Rumsey. September 1953. 26p. diagrs., photos. (NACA RM L53H06)

THE EFFECT OF SOME SURFACE ROUGHNESS ELEMENTS ON THE DRAG OF A BODY OF REVOLUTION AT SUPERSONIC SPEEDS. Russell N. Hopko. November 1954. 14p. diagrs., photos., tab. (NACA RM L54I21)

EXPLORATORY TESTS OF TRANSPIRATION COOLING OF A POROUS 8° CONE AT M = 2.05 USING NITROGEN GAS, HELIUM GAS, AND WATER AS THE COOLANTS. Leo T. Chauvin and Howard S. Carter. June 1955. 22p. diagrs., photos., tab. (NACA RM L55C29)

EFFECT OF MACH NUMBER ON BOUNDARY-LAYER TRANSITION IN THE PRESENCE OF PRESSURE RISE AND SURFACE ROUGHNESS ON AN OGIVE-CYLINDER BODY WITH COLD WALL CONDITIONS. Robert J. Carros. April 1956. 30p. diagrs., photos. (NACA RM A56B15)

EXPERIMENTAL INVESTIGATION OF INTERFERENCE EFFECTS OF LATERAL-SUPPORT STRUTS ON AFTERBODY PRESSURES AT MACH 1.9. John L. Klann and Ronald G. Huff. May 1956. 13p. diagrs., tab. (NACA RM E56C16)

HEAT TRANSFER AND BOUNDARY-LAYER TRANSITION ON TWO BLUNT BODIES AT MACH NUMBER 3.12. N. S. Diaconis, Richard J. Wisniewski, and John R. Jack. October 1957. 31p. diagrs., photo. (NACA TN 4099)

EXPERIMENTAL DROPLET IMPINGEMENT ON FOUR BODIES OF REVOLUTION. James P. Lewis and Robert S. Ruggeri. December 1957. 61p. diagrs., photos. (NACA TN 4092)

INVESTIGATION OF EFFECTS OF DISTRIBUTED SURFACE ROUGHNESS ON A TURBULENT BOUNDARY LAYER OVER A BODY OF REVOLUTION AT A MACH NUMBER OF 2.01. John R. Sevier, Jr., and K. R. Czarnecki. February 1958. 31p. diagrs., photos. (NACA TN 4183)

EFFECT OF DISTRIBUTED GRANULAR-TYPE ROUGHNESS ON BOUNDARY-LAYER TRANSITION AT SUPERSONIC SPEEDS WITH AND WITHOUT SURFACE COOLING. Albert L. Braslow. March 1958. 22p. diagrs., photos. (NACA RM L58A17)

EFFECTS OF FABRICATION-TYPE ROUGHNESS ON TURBULENT SKIN FRICTION AT SUPERSONIC SPEEDS. K. R. Czarnecki, John R. Sevier, Jr., and Melvin M. Carmel. July 1958. 15p. diagrs. (NACA TN 4299)

EFFECTS OF BOUNDARY-LAYER DISPLACEMENT AND LEADING-EDGE BLUNTNESS ON PRESSURE DISTRIBUTION, SKIN FRICTION, AND HEAT TRANSFER OF BODIES AT HYPERSONIC SPEEDS. Mitchel H. Bertram and Arthur Henderson, Jr. July 1958. 33p. diagrs. (NACA TN 4301)

THEORETICAL DISTRIBUTION OF LAMINAR-BOUNDARY-LAYER THICKNESS, BOUNDARY-LAYER REYNOLDS NUMBER AND STABILITY LIMIT, AND ROUGHNESS REYNOLDS NUMBER FOR A SPHERE AND DISK IN INCOMPRESSIBLE FLOW. Neal Tetervin. September 1958. 36p. diagrs. (NACA TN 4350)

SIMPLIFIED METHOD FOR DETERMINATION OF CRITICAL HEIGHT OF DISTRIBUTED ROUGHNESS PARTICLES FOR BOUNDARY-LAYER TRANSITION AT MACH NUMBERS FROM 0 TO 5. Albert L. Braslow and Eugene C. Knox. September 1958. 18p. diagrs., photos. (NACA TN 4363)

(1.3.2.5) PROTUBERANCES

EXPERIMENTAL PRESSURE DISTRIBUTION ON AN ASYMMETRICAL NONCONICAL BODY AT MACH NUMBER 1.90. DeMarquis D. Wyatt. February 24, 1949. 58p. diagrs., photos., tabs. (NACA RM E9B03)

INFLUENCE OF FUSELAGE-MOUNTED ROCKET-BOOSTERS ON FLOW FIELD AT INLET AND ON DIFFUSER PERFORMANCE OF STRUT-MOUNTED ENGINE AT MACH NUMBERS OF 1.8 AND 2.0. George A. Wise and Leonard J. Obery. October 1952. 16p. diagrs., photos. (NACA RM E52I02)

EFFECT ON TRANSONIC AND SUPERSONIC DRAG OF FUSELAGE GLOVES DESIGNED TO GIVE A SMOOTH OVERALL AREA DISTRIBUTION TO A SWEPT-WING—BODY COMBINATION. James Rudyard Hall. November 1954. 10p. diagrs., photos. (NACA RM L54H30)

THE EFFECT OF SOME SURFACE ROUGHNESS ELEMENTS ON THE DRAG OF A BODY OF REVOLUTION AT SUPERSONIC SPEEDS. Russell N. Hopko. November 1954. 14p. diagrs., photos., tab. (NACA RM L54I21)

RECOVERY TEMPERATURES AND HEAT TRANSFER NEAR TWO-DIMENSIONAL ROUGHNESS ELEMENTS AT MACH 3.1. Paul F. Brinich. February 1958. 20p. diagrs. (NACA TN 4213)

EFFECT OF SOME EXTERNAL CROSSWISE STIFFENERS ON THE HEAT TRANSFER AND PRESSURE DISTRIBUTION ON A FLAT PLATE AT MACH NUMBERS OF 0.77, 1.39, AND 1.98. Howard S. Carter. September 1958. 21p. diagrs., photo., tab. (NACA TN 4333)

(1.3.3) CANOPIES

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. FORCE CHARACTERISTICS OF THE COMPLETE CONFIGURATION AND ITS VARIOUS COMPONENTS AT MACH NUMBERS OF 1.40 AND 1.59. Norman F. Smith and Jack E. Marte. January 22, 1951. 55p. diagrs., photos., tab. (NACA RM L50K14)

MEASUREMENTS OF AERODYNAMIC HEATING OBTAINED DURING DEMONSTRATION FLIGHT TESTS OF THE DOUGLAS D-558-II AIRPLANE. Ira P. Jones, Jr. November 1952. 19p. diagrs., photo., tab. (NACA RM L52I26a)

THE EFFECT OF CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Harold L. Robinson. June 1954. 14p. diagrs., photo. (NACA RM L54E11)

TRANSONIC WIND-TUNNEL INVESTIGATION OF EFFECTS OF WINDSHIELD SHAPE AND CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF CANOPY-BODY COMBINATIONS. Elden S. Cornette and Harold L. Robinson. September 1955. 55p. diagrs. (NACA RM L55G08)

FREE-FLIGHT INVESTIGATION TO DETERMINE THE DRAG OF FLAT- AND VEE-WINDSHIELD CANOPIES ON A PARABOLIC FUSELAGE WITH AND WITHOUT TRANSONIC INDENTATION BETWEEN MACH NUMBERS OF 0.75 AND 1.35. Walter L. Kouyoumjian and Sherwood Hoffman. September 1958. 34p. diagrs., photos., tabs. (NACA TN 4405)

(1.3.4) DUCTED BODIES

TRANSONIC FREE-FLIGHT DRAG RESULTS OF FULL-SCALE MODELS OF 16-INCH-DIAMETER RAM-JET ENGINES. Wesley E. Messing and Loren W. Acker. April 1952. 17p. diagrs. (NACA RM E52B19)

TRANSONIC FREE-FLIGHT INVESTIGATION OF THE TOTAL DRAG AND OF THE COMPONENT DRAGS (COWL PRESSURE, ADDITIVE, BASE, FRICTION, AND INTERNAL) ENCOUNTERED BY A 16-INCH-DIAMETER RAM-JET ENGINE FOR MACH NUMBERS FROM 0.80 TO 1.43. Wesley E. Messing and Leonard Rabb. August 1952. 34p. diagrs., photos. (NACA RM E52F02)

TRANSONIC FLIGHT TESTS TO DETERMINE ZERO-LIFT DRAG AND PRESSURE RECOVERY OF NACELLES LOCATED AT THE WING ROOT ON A 45° SWEPTBACK WING AND BODY CONFIGURATION. Sherwood Hoffman and Austin L. Wolff. September 1953. 31p. diagrs., photos., tabs. (NACA RM L53H20)

JET EFFECTS ON FLOW OVER AFTERBODIES IN SUPERSONIC STREAM. Edgar M. Cortright, Jr., and Fred D. Kochendorfer. November 1953. 31p. diagrs., photos. (NACA RM E53H25)

FLIGHT INVESTIGATION OF ENGINE NACELLES AND WING VERTICAL POSITION ON THE DRAG OF A DELTA-WING AIRPLANE CONFIGURATION FROM MACH NUMBER 0.8 TO 2.0. Joseph H. Judd. March 1954. 39p. diagrs., photos., tabs. (NACA RM L53L21)

PUMPING AND DRAG CHARACTERISTICS OF AN AIRCRAFT EJECTOR AT SUBSONIC AND SUPERSONIC SPEEDS. Gerald C. Gorton. June 1954. 19p. diagrs. (NACA RM E54D06)

DRAG DATA FOR 16-INCH-DIAMETER RAM-JET ENGINE WITH DOUBLE-CONE INLET IN FREE FLIGHT AT MACH NUMBERS FROM 0.7 TO 1.8. Merle L. Jones, Leonard Rabb, and Scott H. Simpkinson. October 1954. 52p. diagrs., photos. (NACA RM E54H02)

(1.3.4.1)
NOSE SHAPE

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. I - CONICAL SPIKE ALL-EXTERNAL COMPRESSION INLET WITH SUBSONIC COWL LIP. Fred T. Esenwein and Alfred S. Valerino. January 19, 1951. 73p. diagrs., photos., tabs. (NACA RM E50J26)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. II - ISENTROPIC-SPIKE ALL-EXTERNAL COMPRESSION INLET. L. J. Obery and G. W. Englert. February 9, 1951. 67p. diagrs., photos., tabs. (NACA RM E50J26a)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. III - CONICAL-SPIKE ALL-EXTERNAL-COMPRESSION INLET WITH SUPERSONIC COWL LIP. Maynard I. Weinstein and Joseph Davids. February 14, 1951. 51p. diagrs., tabs. (NACA RM E50J30)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. IV - CONICAL-SPIKE EXTERNAL-INTERNAL COMPRESSION INLET UTILIZING PERFORATED COWL. Robert T. Madden and Emil J. Kremzier. March 28, 1951. 46p. diagrs., photos., tabs. (NACA RM E51B05)

NACA INVESTIGATIONS OF ICING-PROTECTION SYSTEMS FOR TURBOJET-ENGINE INSTALLATIONS. Uwe von Glahn, Edmund E. Callaghan, and Vernon H. Gray. May 2, 1951. (ii), 83p. diagrs., photos. (NACA RM E51B12)

TOTAL-PRESSURE RECOVERY OF A CIRCULAR UNDERSLUNG INLET WITH THREE DIFFERENT NOSE SHAPES AT A MACH NUMBER OF 1.42. Charles F. Merlet and Howard S. Carter. February 1952. 37p. diagrs., photos. (NACA RM L51K05)

PRELIMINARY INVESTIGATION OF EFFECT OF ANGLE OF ATTACK ON PRESSURE RECOVERY AND STABILITY CHARACTERISTICS FOR A VERTICAL-WEDGE-NOSE INLET AT MACH NUMBER OF 1.90. L. Abbott Leissler and Donald P. Hearth. August 1952. 11p. diagrs., photos. (NACA RM E52E14)

FORCE AND PRESSURE RECOVERY CHARACTERISTICS AT SUPERSONIC SPEEDS OF A CONICAL SPIKE INLET WITH BYPASSES DISCHARGING IN AN AXIAL DIRECTION. J. L. Allen and Andrew Beke. January 1953. 27p. diagrs., photos., tab. (NACA RM E52K14)

INVESTIGATION AT SUPERSONIC SPEEDS OF AN INLET EMPLOYING CONICAL FLOW SEPARATION FROM A PROBE AHEAD OF A BLUNT BODY. Donald P. Hearth and Gerald C. Gorton. January 1953. 32p. diagrs., photos., tab. (NACA RM E52K18)

A PRELIMINARY INVESTIGATION AT MACH NUMBER 1.91 OF AN INLET CONFIGURATION DESIGNED FOR INSENSITIVITY TO POSITIVE ANGLE-OF-ATTACK OPERATION. Milton A. Beheim. July 1953. 18p. diagrs., photos. (NACA RM E53E20)

INVESTIGATION OF A TRANSLATING-CONE INLET AT MACH NUMBERS FROM 1.5 TO 2.0. L. Abbott Leissler and William H. Sterbentz. May 1954. 29p. diagrs., photos., tab. (NACA RM E54B23)

INVESTIGATION OF A FLOW DEFLECTOR AND AN AUXILIARY SCOOP FOR IMPROVING OFF-DESIGN PERFORMANCE OF NOSE INLETS. Warren E. Anderson and Richard Scherrer. July 1954. 32p. diagrs., photos. (NACA RM A54E06)

FLIGHT DETERMINATION OF THE DRAG OF CONICAL-SHOCK NOSE INLETS WITH VARIOUS COWLING SHAPES AND AXIAL POSITIONS OF THE CENTER BODY AT MACH NUMBERS FROM 0.8 TO 2.0. Charles F. Merlet and Leonard W. Putland. September 1954. 41p. diagrs., photos., tabs. (NACA RM L54G21a)

A STUDY OF SEVERAL THEORETICAL METHODS FOR COMPUTING THE ZERO-LIFT WAVE DRAG OF A FAMILY OF OPEN-NOSED BODIES OF REVOLUTION IN THE MACH NUMBER RANGE OF 2.0 TO 4.0. Leroy L. Presley and Emmet A. Mossman. September 1958. 61p. diagrs. (NACA TN 4368)

(1.3.4.2)
TAIL SHAPE

EXPERIMENTAL EFFECTS OF PROPULSIVE JETS AND AFTERBODY CONFIGURATIONS ON THE ZERO-LIFT DRAG OF BODIES OF REVOLUTION AT A MACH NUMBER OF 1.59. Carlos A. de Moraes and Albin M. Nowitzky. April 1954. 32p. diagrs., photos. (NACA RM L54C16)

TRANSONIC FLIGHT TEST OF A ROCKET-POWERED MODEL TO DETERMINE PROPULSIVE JET INFLUENCE ON THE CONFIGURATION DRAG. Carlos A. deMoraes. June 1954. 16p. diagrs., photo. (NACA RM L54D27)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF SIMULATED SONIC TURBOJET EXHAUST ON THE DRAG OF A BOATTAIL BODY WITH VARIOUS JET SIZES FROM MACH NUMBER 0.87 TO 1.50. Ralph A. Falanga. August 1955. 23p. diagrs., photos., tab. (NACA RM L55F09a)

INITIAL INCLINATION OF THE MIXING BOUNDARY SEPARATING AN EXHAUSTING SUPERSONIC JET FROM A SUPERSONIC AMBIENT STREAM. Eugene S. Love. January 1956. 30p. diagrs. (NACA RM L55J14)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF A SONIC JET ON THE TOTAL-DRAG AND BASE-PRESSURE COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION FROM MACH NUMBER 0.83 TO 1.70. Ralph A. Falanga. March 1956. 18p. diagrs., photo., tab. (NACA RM L55L21)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A HEATED PROPULSIVE JET ON THE PRESSURE DISTRIBUTION ALONG A FUSELAGE OVERHANG. Elden S. Cornette and Donald H. Ward. April 1956. 42p. diagrs., photos., tab. (NACA RM L56A27)

EFFECTS OF EXTERNAL STREAM FLOW AND AFTERBODY VARIATIONS ON THE PERFORMANCE OF A PLUG NOZZLE AT HIGH SUBSONIC SPEEDS. R. J. Salmi and E. M. Cortright, Jr. October 1956. 19p. diagrs. (NACA RM E56F11a)

FREE-FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF DRAG COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION WITH A SIMULATED TURBOJET EXHAUST ISSUING AT THE BASE FROM CONICAL SHORT-LENGTH EJECTORS. Ralph A. Falanga and Abraham Leiss. December 1956. 34p. diagrs., photos., tab. (NACA RM L56H23)

(1.3.4.3) SIDE INLETS

EXPERIMENTAL INVESTIGATION AT SUPERSONIC SPEEDS OF SIDE SCOOPS EMPLOYING BOUNDARY-LAYER SUCTION. Sherman S. Edwards. December 12, 1949. 37p. diagrs., photos. (NACA RM A9I29)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF INLET-ENGINE MATCHING FOR TURBOJET-POWERED AIRCRAFT AT MACH NUMBERS UP TO 2.0. Carl F. Schueller and Fred T. Esenwein. February 1952. 31p. diagrs., photos. (NACA RM E51K20)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. I - TWO-DIMENSIONAL COMPRESSION-RAMP INLETS WITH SEMICIRCULAR COWLS. Alfred S. Valerino. July 1952. 43p. diagrs., photos., tab. (NACA RM E52E02)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. II - INLETS UTILIZING HALF OF A CONICAL SPIKE. J. L. Allen and P. C. Simon. September 1952. 49p. diagrs., photos., tab. (NACA RM E52G08)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.00 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. III - NORMAL-WEDGE INLET WITH SEMICIRCULAR COWL. Fred T. Esenwein. October 1952. 43p. diagrs., photos. (NACA RM E52H20)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. IV - RECTANGULAR-COWL INLETS WITH TWO-DIMENSIONAL COMPRESSION RAMPS. Paul C. Simon. October 1952. 35p. diagrs., photos. (NACA RM E52H29)

INVESTIGATION AT TRANSONIC SPEEDS OF A FORWARD-LOCATED UNDERSLUNG AIR INLET ON A BODY OF REVOLUTION. P. Kenneth Pierpont and John A. Braden. January 1953. 109p. diagrs., photos., tabs. (NACA RM L52K17)

EFFECT OF CIRCUMFERENTIAL LOCATION ON ANGLE OF ATTACK PERFORMANCE OF TWIN HALF-CONICAL SCOOP-TYPE INLETS MOUNTED SYMMETRICALLY ON THE RM-10 BODY OF REVOLUTION. Alfred S. Valerino, Donald B. Pennington, and Donald J. Vargo. September 1953. 37p. diagrs., photos. (NACA RM E53G09)

PRESSURE RECOVERY AND DRAG CHARACTERISTICS OF A FORWARD LOCATED CIRCULAR SCOOP INLET AS DETERMINED FROM FLIGHT TESTS FOR MACH NUMBERS FROM 0.8 TO 1.6. Charles F. Merlet. April 1954. 23p. diagrs., photos., tab. (NACA RM L54B23)

FLIGHT DETERMINATION OF DRAG AND PRESSURE RECOVERY OF TWO SCOOP INLETS LOCATED AT MAXIMUM-BODY-DIAMETER STATION AT MACH NUMBERS FROM 0.8 TO 1.8. Leonard W. Putland. January 1956. 24p. diagrs., photos., tab. (NACA RM L55H22a)

CRITERIA FOR INITIAL FLOW REVERSAL IN SYMMETRICAL TWIN-INTAKE AIR-INDUCTION SYSTEMS OPERATING AT SUPERSONIC SPEEDS. Andrew Beke. February 1956. 17p. diagrs. (NACA RM E55L02a)

EFFECT OF FUSELAGE CIRCUMFERENTIAL INLET LOCATION ON DIFFUSER-DISCHARGE TOTAL-PRESSURE PROFILES AT SUPERSONIC SPEEDS. Emil J. Kremzier and Joseph F. Wasserbauer. October 1956. 14p. diagrs. (NACA RM E56G28)

EFFECT OF WALL COOLING ON INLET PARAMETERS OF A SCOOP OPERATING IN A TURBULENT BOUNDARY LAYER ON A FLAT OR CONICAL SURFACE FOR MACH NUMBERS 2 TO 10. Andrew Beke. March 1958. 21p. diagrs., tabs. (NACA TN 4153)

(1.3.4.4)
SIDE EXITS

SUMMARY OF SCALE-MODEL THRUST-REVERSER INVESTIGATION. John H. Povolny, Fred W. Steff and Jack G. McArdle. 1957. ii, 14p. diagrs., photos. (NACA Rept. 1314. Supersedes TN 3664)

AN INVESTIGATION OF DISCHARGE AND THRUST CHARACTERISTICS OF FLAPPED OUTLETS FOR STREAM MACH NUMBERS FROM 0.40 TO 1.30. Allen R. Vick. July 1957. 47p. diagrs. (NACA TN 4007)

(1.4)
Internal Aerodynamics

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. IV - RECTANGULAR-COWL INLETS WITH TWO-DIMENSIONAL COMPRESSION RAMPS. Paul C. Simon. October 1952. 35p. diagrs., photos. (NACA RM E52H29)

PERFORMANCE OF A SWEPT LEADING EDGE ROTOR OF THE SUPERSONIC TYPE WITH MIXED FLOW. Arthur W. Goldstein and Ralph L. Schacht. January 1953. 34p. diagrs., photo., tab. (NACA RM E52K03)

ALTITUDE STARTING CHARACTERISTICS OF AN AFTERBURNER WITH AUTOIGNITION AND HOT-STREAK IGNITION. P. E. Renas, R. W. Harvey, Sr., and E. T. Jansen. April 1953. 25p. diagrs., photos., tab. (NACA RM E53B02)

PERFORMANCE OF A SUPERSONIC MIXED-FLOW ROTOR WITH A SWEPT LEADING EDGE AND 0.52 INLET RADIUS RATIO. Arthur W. Goldstein and Ralph L. Schacht. November 1953. 34p. diagrs., photos., tab. (NACA RM E53H27)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. 1957. iii, 19p. diagrs., tab. (NACA Rept. 1333. Supersedes TN 3278)

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

FLOW-TURNING LOSSES ASSOCIATED WITH ZERO-DRAG EXTERNAL-COMPRESSION SUPERSONIC INLETS. Rudolph C. Meyer. October 1957. 18p. diagrs. (NACA TN 4096)

(1.4.1)
AIR INLETS

TRANSONIC FLIGHT TESTS TO DETERMINE ZERO-LIFT DRAG AND PRESSURE RECOVERY OF NACELLES LOCATED AT THE WING ROOT ON A 45° SWEPTBACK WING AND BODY CONFIGURATION. Sherwood Hoffman and Austin L. Wolff. September 1953. 31p. diagrs., photos., tabs. (NACA RM L53H20)

AN ANALYSIS OF THE TRANSONIC AND SUPERSONIC PERFORMANCE OF SEVERAL FIXED-GEOMETRY AIR INLETS. Robert E. Pendley and Robert R. Howell. March 1955. 36p. diagrs., tab. (NACA RM L54L29)

EFFECT OF FUSELAGE CIRCUMFERENTIAL INLET LOCATION ON DIFFUSER-DISCHARGE TOTAL-PRESSURE PROFILES AT SUPERSONIC SPEEDS. Emil J. Kremzier and Joseph F. Wasserbauer. October 1956. 14p. diagrs. (NACA RM E56G26)

FOREIGN-OBJECT RETENTION AND FLOW CHARACTERISTICS OF RETRACTABLE ENGINE-INLET SCREENS. Fred W. Steffen and Lewis A. Rodert. July 1957. 30p. diagrs., photos. (NACA RM E57A15)

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SOME SHROUD DESIGN VARIABLES ON THE STATIC THRUST CHARACTERISTICS OF A SMALL-SCALE SHROUDED PROPELLER SUBMERGED IN A WING. Robert T. Taylor. January 1958. 23p. diagrs., photos. (NACA TN 4126)

DROPLET IMPINGEMENT AND INGESTION BY SUPERSONIC NOSE INLET IN SUBSONIC TUNNEL CONDITIONS. Thomas F. Gelder. May 1958. 56p. diagrs., photos. (NACA TN 4268)

A PERFORMANCE ANALYSIS OF METHODS FOR HANDLING EXCESS INLET FLOW AT SUPERSONIC SPEEDS. Donald P. Hearth and James F. Connors. May 1958. 26p. diagrs., tab. (NACA TN 4270)

(1.4.1.1)
NOSE, CENTRAL

NACA INVESTIGATIONS OF ICING-PROTECTION SYSTEMS FOR TURBOJET-ENGINE INSTALLATIONS. Uwe von Glahn, Edmund E. Callaghan, and Vernon H. Gray. May 2, 1951. (ii), 83p. diagrs., photos. (NACA RM E51B12)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH VERTICALLY MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Leonard J. Obery and Howard S. Krasnow. September 1952. 25p. diagrs. (NACA RM E52H08)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

THE EFFECT OF INITIAL RATE OF SUBSONIC DIFFUSION ON THE STABLE SUBCRITICAL MASS-FLOW RANGE OF A CONICAL SHOCK DIFFUSER. J. C. Nettles. July 1953. 23p. diagrs. (NACA RM E53E26)

AN ANALYTICAL STUDY OF THE COMPARATIVE PERFORMANCE OF SIX AIR-INDUCTION SYSTEMS FOR TURBOJET-POWERED AIRPLANES DESIGNED TO OPERATE AT MACH NUMBERS UP TO 2.0. Earl C. Watson. October 1953. 46p. diagrs. (NACA RM A53H03)

INVESTIGATION OF A FLOW DEFLECTOR AND AN AUXILIARY SCOOP FOR IMPROVING OFF-DESIGN PERFORMANCE OF NOSE INLETS. Warren E. Anderson and Richard Scherrer. July 1954. 32p. diagrs., photos. (NACA RM A54E06)

(1.4.1.1.1) Propeller-Spinner-Cowl Combinations

AN INVESTIGATION OF SINGLE- AND DUAL-ROTATION PROPELLERS AT POSITIVE AND NEGATIVE THRUST, AND IN COMBINATION WITH AN NACA 1-SERIES D-TYPE COWLING AT MACH NUMBERS UP TO 0.84. Robert M. Reynolds, Robert I. Sammonds, and John H. Walker. 1957. ii, 58p. diagrs., photos., tabs. (NACA Rept. 1336)

INVESTIGATION OF HEAT TRANSFER FROM A STATIONARY AND ROTATING CONICAL FORE-BODY. Robert S. Ruggeri and James P. Lewis. October 1957. 30p. diagrs., photo., tab. (NACA TN 4093)

EXPERIMENTAL DROPLET IMPINGEMENT ON FOUR BODIES OF REVOLUTION. James P. Lewis and Robert S. Ruggeri. December 1957. 61p. diagrs., photos. (NACA TN 4092)

(1.4.1.1.2) Subsonic

INVESTIGATION OF TRANSLATING-SPIKE SUPERSONIC INLET AS MEANS OF MASS-FLOW CONTROL AT MACH NUMBERS OF 1.5, 1.8, AND 2.0. Gerald C. Gorton. October 1953. 23p. diagrs., photos., tabs. (NACA RM E53G10)

SOME CONSIDERATIONS CONCERNING INLETS AND DUCTED BODIES AT MACH NUMBERS FROM 0.8 TO 2.0. Richard I. Sears. November 1953. 17p. diagrs. (NACA RM L53I25b)

A METHOD FOR DESIGNING LOW-DRAG NOSE-INLET—BODY COMBINATIONS FOR OPERATION AT MODERATE SUPERSONIC SPEEDS. Robert R. Howell. November 1954. 29p. diagrs., photos., tab. (NACA RM L54I01a)

TURBULENT FLOW THROUGH POROUS RESISTANCES SLIGHTLY INCLINED TO THE FLOW DIRECTION. Albert L. Loeffler, Jr., and Morris Perlmutter. February 1958. 30p. diagrs., photos. (NACA TN 4221)

(1.4.1.1.3) Supersonic

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. I - CONICAL SPIKE ALL-EXTERNAL COMPRESSION INLET WITH SUBSONIC COWL LIP. Fred T. Esenwein and Alfred S. Valerino. January 19, 1951. 73p. diagrs., photos., tabs. (NACA RM E50J26)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. II - ISENTROPIC-SPIKE ALL-EXTERNAL COMPRESSION INLET. L. J. Obery and G. W. Englert. February 9, 1951. 67p. diagrs., photos., tabs. (NACA RM E50J26a)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. III - CONICAL-SPIKE ALL-EXTERNAL-COMPRESSION INLET WITH SUPERSONIC COWL LIP. Maynard I. Weinstein and Joseph Davids. February 14, 1951. 51p. diagrs., tabs. (NACA RM E50J30)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. IV - CONICAL-SPIKE EXTERNAL-INTERNAL COMPRESSION INLET UTILIZING PERFORATED COWL. Robert T. Madden and Emil J. Kremzier. March 28, 1951. 46p. diagrs., photos., tabs. (NACA RM E51B05)

PRELIMINARY INVESTIGATION OF EFFECT OF ANGLE OF ATTACK ON PRESSURE RECOVERY AND STABILITY CHARACTERISTICS FOR A VERTICAL-WEDGE-NOSE INLET AT MACH NUMBER OF 1.90. L. Abbott Leissler and Donald P. Hearth. August 1952. 11p. diagrs., photos. (NACA RM E52E14)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH VERTICALLY MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Leonard J. Obery and Howard S. Krasnow. September 1952. 25p. diagrs. (NACA RM E52H08)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF INLET ASYMMETRY ON THE PERFORMANCE OF CONVERGING-DIVERGING DIFFUSERS AT TRANSONIC SPEEDS. John S. Dennard and William J. Nelson. November 1952. 30p. diagrs., photos., tab. (NACA RM L52J20)

INVESTIGATION AT SUPERSONIC SPEEDS OF AN INLET EMPLOYING CONICAL FLOW SEPARATION FROM A PROBE AHEAD OF A BLUNT BODY. Donald P. Hearth and Gerald C. Gorton. January 1953. 32p. diagrs., photos., tab. (NACA RM E52K18)

INVESTIGATION OF PRESSURE RECOVERY OF A SINGLE-CONICAL-SHOCK NOSE INLET AT MACH NUMBER 5.4. Harry Bernstein and Rudolph C. Haefeli. April 1953. 22p. diagrs., photos. (NACA RM E53A12)

A PRELIMINARY INVESTIGATION AT MACH NUMBER 1.91 OF AN INLET CONFIGURATION DESIGNED FOR INSENSITIVITY TO POSITIVE ANGLE-OF-ATTACK OPERATION. Milton A. Beheim. July 1953. 18p. diagrs., photos. (NACA RM E53E20)

THE EFFECT OF INITIAL RATE OF SUBSONIC DIFFUSION ON THE STABLE SUBCRITICAL MASS-FLOW RANGE OF A CONICAL SHOCK DIFFUSER. J. C. Nettles. July 1953. 23p. diagrs. (NACA RM E53E26)

SOME CONSIDERATIONS CONCERNING INLETS AND DUCTED BODIES AT MACH NUMBERS FROM 0.8 TO 2.0. Richard I. Sears. November 1953. 17p. diagrs. (NACA RM L53I25b)

PRELIMINARY INVESTIGATION OF THE TOTAL-PRESSURE-RECOVERY CHARACTERISTICS OF A SYMMETRIC AND AN ASYMMETRIC NOSE INLET OVER A WIDE RANGE OF ANGLE OF ATTACK AT SUPERSONIC MACH NUMBERS. Howard S. Carter and Charles F. Merlet. December 1953. 27p. diagrs., photo. (NACA RM L53J30)

INVESTIGATION OF A FLOW DEFLECTOR AND AN AUXILIARY SCOOP FOR IMPROVING OFF-DESIGN PERFORMANCE OF NOSE INLETS. Warren E. Anderson and Richard Scherrer. July 1954. 32p. diagrs., photos. (NACA RM A54E06)

A METHOD FOR DESIGNING LOW-DRAG NOSE-INLET—BODY COMBINATIONS FOR OPERATION AT MODERATE SUPERSONIC SPEEDS. Robert R. Howell. November 1954. 29p. diagrs., photos., tab. (NACA RM L54I01a)

INVESTIGATION TO MACH NUMBER 2.0 OF SHOCK-POSITIONING CONTROL SYSTEMS FOR A VARIABLE-GEOMETRY INLET IN COMBINATION WITH A J34 TURBOJET ENGINE. L. Abbott Leissler and J. Cary Nettles. December 1954. 19p. diagrs. (NACA RM E54I27)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.7 TO 1.75 OF A FOUR-ENGINE SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM A ROCKET-PROPELLED MODEL TEST. Rowe Chapman, Jr. September 1955. 39p. diagrs., photos., tabs. (NACA RM L55F23)

FLIGHT INVESTIGATION OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND HAVING A CONICAL SHOCK INLET DESIGNED FOR A MACH NUMBER OF 4.1. Walter A. Bartlett, Jr., and Charles F. Merlet. January 1957. 23p. diagrs., photos. (NACA RM L56I24a)

A PRELIMINARY INVESTIGATION OF METHODS FOR IMPROVING THE PRESSURE-RECOVERY CHARACTERISTICS OF VARIABLE-GEOMETRY SUPERSONIC-SUBSONIC DIFFUSER SYSTEMS. Lowell E. Hasel and Archibald R. Sinclair. October 1957. 57p. diagrs., photos. (NACA RM L57H02)

(1.4.1.2) NOSE, ANNULAR

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. I - CONICAL SPIKE ALL-EXTERNAL COMPRESSION INLET WITH SUBSONIC COWL LIP. Fred T. Esenwein and Alfred S. Valerino. January 19, 1951. 73p. diagrs., photos., tabs. (NACA RM E50J26)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. II - ISENTROPIC-SPIKE ALL-EXTERNAL COMPRESSION INLET. L. J. Obery and G. W. Englert. February 9, 1951. 67p. diagrs., photos., tabs. (NACA RM E50J26a)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. III - CONICAL-SPIKE ALL-EXTERNAL-COMPRESSION INLET WITH SUPERSONIC COWL LIP. Maynard I. Weinstein and Joseph Davids. February 14, 1951. 51p. diagrs., tabs. (NACA RM E50J30)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. IV - CONICAL-SPIKE EXTERNAL-INTERNAL COMPRESSION INLET UTILIZING PERFORATED COWL. Robert T. Madden and Emil J. Kremzier. March 28, 1951. 46p. diagrs., photos., tabs. (NACA RM E51B05)

EVALUATION OF FIVE CONICAL CENTER-BODY SUPERSONIC DIFFUSERS AT SEVERAL ANGLES OF ATTACK. Gerald W. Englert and Leonard J. Obery. May 1952. 29p. diagrs., photos., tab. (NACA RM E51L04)

PRELIMINARY INVESTIGATION OF EFFECT OF ANGLE OF ATTACK ON PRESSURE RECOVERY AND STABILITY CHARACTERISTICS FOR A VERTICAL-WEDGE-NOSE INLET AT MACH NUMBER OF 1.90. L. Abbott Leissler and Donald P. Hearth. August 1952. 11p. diagrs., photos. (NACA RM E52E14)

FORCE AND PRESSURE RECOVERY CHARACTERISTICS AT SUPERSONIC SPEEDS OF A CONICAL SPIKE INLET WITH BYPASSES DISCHARGING IN AN AXIAL DIRECTION. J. L. Allen and Andrew Beke. January 1953. 27p. diagrs., photos., tab. (NACA RM E52K14)

INVESTIGATION AT SUPERSONIC SPEEDS OF AN INLET EMPLOYING CONICAL FLOW SEPARATION FROM A PROBE AHEAD OF A BLUNT BODY. Donald P. Hearth and Gerald C. Gorton. January 1953. 32p. diagrs., photos., tab. (NACA RM E52K18)

A PRELIMINARY INVESTIGATION AT MACH NUMBER 1.91 OF AN INLET CONFIGURATION DESIGNED FOR INSENSITIVITY TO POSITIVE ANGLE-OF-ATTACK OPERATION. Milton A. Beheim. July 1953. 18p. diagrs., photos. (NACA RM E53E20)

THE EFFECT OF INITIAL RATE OF SUBSONIC DIFFUSION ON THE STABLE SUBCRITICAL MASS-FLOW RANGE OF A CONICAL SHOCK DIFFUSER. J. C. Nettles. July 1953. 23p. diagrs. (NACA RM E53E26)

INVESTIGATION OF TRANSLATING-SPIKE SUPERSONIC INLET AS MEANS OF MASS-FLOW CONTROL AT MACH NUMBERS OF 1.5, 1.8, AND 2.0. Gerald C. Gortoń. October 1953. 23p. diagrs., photos., tabs. (NACA RM E53G10)

SOME CONSIDERATIONS CONCERNING INLETS AND DUCTED BODIES AT MACH NUMBERS FROM 0.8 TO 2.0. Richard I. Sears. November 1953. 17p. diagrs. (NACA RM L53I25b)

INVESTIGATION OF A TRANSLATING-CONE INLET AT MACH NUMBERS FROM 1.5 TO 2.0. L. Abbott Leissler and William H. Sterbentz. May 1954. 29p. diagrs., photos., tab. (NACA RM E54B23)

FLIGHT DETERMINATION OF THE DRAG OF CONICAL-SHOCK NOSE INLETS WITH VARIOUS COWLING SHAPES AND AXIAL POSITIONS OF THE CENTER BODY AT MACH NUMBERS FROM 0.8 TO 2.0. Charles F. Merlet and Leonard W. Putland. September 1954. 41p. diagrs., photos., tabs. (NACA RM L54G21a)

DRAG DATA FOR 16-INCH-DIAMETER RAM-JET ENGINE WITH DOUBLE-CONE INLET IN FREE FLIGHT AT MACH NUMBERS FROM 0.7 TO 1.8. Merle L. Jones, Leonard Rabb, and Scott H. Simpkinson. October 1954. 52p. diagrs., photos. (NACA RM E54H02)

A VARIABLE-GEOMETRY AXISYMMETRIC SUPERSONIC INLET WITH TELESCOPING CENTERBODY. James F. Connors and Rudolph C. Meyer. September 1955. 27p. diagrs., photos., tabs. (NACA RM E55F30)

(1.4.1.3) WING LEADING EDGE

SOME OBSERVATIONS OF FLOW AT THE THROAT OF A TWO-DIMENSIONAL DIFFUSER AT THE MACH NUMBER OF 3.85. James F. Connors and Richard R. Woollett. November 1952. 13p. photos., diagrs. (NACA RM E52I04)

SOME CONSIDERATIONS CONCERNING INLETS AND DUCTED BODIES AT MACH NUMBERS FROM 0.8 TO 2.0. Richard I. Sears. November 1953. 17p. diagrs. (NACA RM L53I25b)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF A SEMIELLIPTICAL AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Robert R. Howell and Charles D. Trescot, Jr. December 1953. 39p. diagrs., photos., tabs. (NACA RM L53J22a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION ON THE AERODYNAMIC CHARACTERISTICS OF A SEMI-ELLIPTICAL SWEPTBACK WING-ROOT INLET CONFIGURATION. Arvid L. Keith, Jr. March 1954. 22p. diagrs., photos., tabs. (NACA RM L54A29)

AN EXPERIMENTAL INVESTIGATION OF TWO-DIMENSIONAL, SUPERSONIC CASCADE-TYPE INLETS AT A MACH NUMBER OF 3.11. Edward Offenhartz. August 1954. 29p. diagrs., photos. (NACA RM L54E17)

PRELIMINARY INVESTIGATION AT MACH NUMBER 1.9 OF SIMULATED WING-ROOT INLETS. Thomas G. Piercy and Maynard I. Weinstein. January 1955. 60p. diagrs., photos., tab. (NACA RM E54I24)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF A SEMICIRCULAR AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Charles D. Trescot, Jr., and Arvid L. Keith, Jr. March 1955. 30p. diagrs., photos., tab. (NACA RM L55A05a)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT SEMIELLIPTICAL AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Gene J. Bingham. September 1955. 37p. diagrs., photos., tabs. (NACA RM L55F22a)

THE EFFECT OF INLET INSTALLATION ON THE ZERO-LIFT DRAG OF A 60° DELTA-WING–BODY CONFIGURATION FROM FLIGHT TESTS AT MACH NUMBERS FROM 0.8 TO 1.86. Charles F. Merlet. December 1955. 29p. diagrs., photos., tabs. (NACA RM L55I09)

INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF INLET LIP STAGGER ON THE INTERNAL-FLOW CHARACTERISTICS OF AN UNSWEPT SEMIELLIPTICAL AIR INLET. Gene J. Bingham and Charles D. Trescot, Jr. May 1956. 31p. diagrs., photos., tab. (NACA RM L56C22)

(1.4.1.4) SIDE

EXPERIMENTAL INVESTIGATION AT SUPERSONIC SPEEDS OF SIDE SCOOPS EMPLOYING BOUNDARY-LAYER SUCTION. Sherman S. Edwards. December 12, 1949. 37p. diagrs., photos. (NACA RM A9I29)

INVESTIGATION AT MACH NUMBER 1.88 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. H. Fred Goelzer and Edgar M. Cortright, Jr. September 1951. 38p. diagrs., photos. (NACA RM E51G06)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. II - INLETS UTILIZING HALF OF A CONICAL SPIKE. J. L. Allen and P. C. Simon. September 1952. 49p. diagrs., photos., tab. (NACA RM E52G08)

INVESTIGATION AT MACH NUMBER 2.93 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. Thomas G. Piercy and Harry W. Johnson. September 1952. 39p. diagrs., photos. (NACA RM E52G23)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.00 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. III - NORMAL-WEDGE INLET WITH SEMICIRCULAR COWL. Fred T. Esenwein. October 1952. 43p. diagrs., photos. (NACA RM E52H20)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. IV - RECTANGULAR-COWL INLETS WITH TWO-DIMENSIONAL COMPRESSION RAMPS. Paul C. Simon. October 1952. 35p. diagrs., photos. (NACA RM E52H29)

A COMPARISON OF SEVERAL SYSTEMS OF BOUNDARY-LAYER REMOVAL AHEAD OF A TYPICAL CONICAL EXTERNAL-COMPRESSION SIDE INLET AT MACH NUMBERS OF 1.88 AND 2.93. Thomas G. Piercy and Harry W. Johnson. September 1953. 58p. diagrs., photos. (NACA RM E53F16)

EFFECT OF CIRCUMFERENTIAL LOCATION ON ANGLE OF ATTACK PERFORMANCE OF TWIN HALF-CONICAL SCOOP-TYPE INLETS MOUNTED SYMMETRICALLY ON THE RM-10 BODY OF REVOLUTION. Alfred S. Valerino, Donald B. Pennington, and Donald J. Vargo. September 1953. 37p. diagrs., photos. (NACA RM E53G09)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT SEMIELLIPTICAL AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Gene J. Bingham. September 1955. 37p. diagrs., photos., tabs. (NACA RM L55F22a)

AN EXPERIMENTAL STUDY OF A METHOD FOR DESIGNING FUSELAGE SIDE AIR INLETS FOR HIGH PERFORMANCE AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Robert R. Howell and Charles D. Trescot, Jr. January 1956. 24p. diagrs., photos., tabs. (NACA RM L55G19)

INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF INLET LIP STAGGER ON THE INTERNAL-FLOW CHARACTERISTICS OF AN UNSWEPT SEMIELLIPTICAL AIR INLET. Gene J. Bingham and Charles D. Trescot, Jr. May 1956. 31p. diagrs., photos., tab. (NACA RM L56C22)

EFFECT OF FUSELAGE CIRCUMFERENTIAL INLET LOCATION ON DIFFUSER-DISCHARGE TOTAL-PRESSURE PROFILES AT SUPERSONIC SPEEDS. Emil J. Kremzier and Joseph F. Wasserbauer. October 1956. 14p. diagrs. (NACA RM E56G26)

(1.4.1.4.1) Scoops

EXPERIMENTAL INVESTIGATION AT SUPERSONIC SPEEDS OF SIDE SCOOPS EMPLOYING BOUNDARY-LAYER SUCTION. Sherman S. Edwards. December 12, 1949. 37p. diagrs., photos. (NACA RM A9I29)

INVESTIGATION AT MACH NUMBER 1.88 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. H. Fred Goelzer and Edgar M. Cortright, Jr. September 1951. 38p. diagrs., photos. (NACA RM E51G06)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF INLET-ENGINE MATCHING FOR TURBOJET-POWERED AIRCRAFT AT MACH NUMBERS UP TO 2.0. Carl F. Schueller and Fred T. Esenwein. February 1952. 31p. diagrs., photos. (NACA RM E51K20)

TOTAL-PRESSURE RECOVERY OF A CIRCULAR UNDERSLUNG INLET WITH THREE DIFFERENT NOSE SHAPES AT A MACH NUMBER OF 1.42. Charles F. Merlet and Howard S. Carter. February 1952. 37p. diagrs., photos. (NACA RM L51K05)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. I - TWO-DIMENSIONAL COMPRESSION-RAMP INLETS WITH SEMICIRCULAR COWLS. Alfred S. Valerino. July 1952. 43p. diagrs., photos., tab. (NACA RM E52E02)

INVESTIGATION AT MACH NUMBER 2.93 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. Thomas G. Piercy and Harry W. Johnson. September 1952. 39p. diagrs., photos. (NACA RM E52G23)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. IV - RECTANGULAR-COWL INLETS WITH TWO-DIMENSIONAL COMPRESSION RAMPS. Paul C. Simon. October 1952. 35p. diagrs., photos. (NACA RM E52H29)

INVESTIGATION AT TRANSONIC SPEEDS OF A FORWARD-LOCATED UNDERSLUNG AIR INLET ON A BODY OF REVOLUTION. P. Kenneth Pierpont and John A. Braden. January 1953. 109p. diagrs., photos., tabs. (NACA RM L52K17)

INVESTIGATION OF A HALF-CONICAL SCOOP INLET MOUNTED AT FIVE ALTERNATE CIRCUMFERENTIAL LOCATIONS AROUND A CIRCULAR FUSELAGE. PRESSURE-RECOVERY RESULTS AT A MACH NUMBER OF 2.01. Lowell E. Hasel, John L. Lankford, and A. W. Robins. June 1953. 41p. diagrs., photos., tab. (NACA RM L53D30b)

A COMPARISON OF SEVERAL SYSTEMS OF BOUNDARY-LAYER REMOVAL AHEAD OF A TYPICAL CONICAL EXTERNAL-COMPRESSION SIDE INLET AT MACH NUMBERS OF 1.88 AND 2.93. Thomas G. Piercy and Harry W. Johnson. September 1953. 58p. diagrs., photos. (NACA RM E53F16)

AN ANALYTICAL STUDY OF THE COMPARATIVE PERFORMANCE OF SIX AIR-INDUCTION SYSTEMS FOR TURBOJET-POWERED AIRPLANES DESIGNED TO OPERATE AT MACH NUMBERS UP TO 2.0. Earl C. Watson. October 1953. 46p. diagrs. (NACA RM A53H03)

SOME CONSIDERATIONS CONCERNING INLETS AND DUCTED BODIES AT MACH NUMBERS FROM 0.8 TO 2.0. Richard I. Sears. November 1953. 17p. diagrs. (NACA RM L53I25b)

PRESSURE RECOVERY AND DRAG CHARACTERISTICS OF A FORWARD LOCATED CIRCULAR SCOOP INLET AS DETERMINED FROM FLIGHT TESTS FOR MACH NUMBERS FROM 0.8 TO 1.6. Charles F. Merlet. April 1954. 23p. diagrs., photos., tab. (NACA RM L54B23)

AN EXPERIMENTAL INVESTIGATION OF TWO-DIMENSIONAL, SUPERSONIC CASCADE-TYPE INLETS AT A MACH NUMBER OF 3.11. Edward Offenhartz. August 1954. 29p. diagrs., photos. (NACA RM L54E17)

PERFORMANCE OF A SUPERSONIC RAMP INLET WITH INTERNAL BOUNDARY-LAYER SCOOP. Robert C. Campbell. November 1954. 14p. diagrs., photo. (NACA RM E54I01)

MATCHING OF AUXILIARY INLETS TO SECONDARY-AIR REQUIREMENTS OF AIRCRAFT EJECTOR EXHAUST NOZZLES. Donald P. Hearth, Gerald W. Englert, and Kenneth L. Kowalski. August 1955. 39p. diagrs. (NACA RM E55D21)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT SEMIELLIPTICAL AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Gene J. Bingham. September 1955. 37p. diagrs., photos., tabs. (NACA RM L55F22a)

A FREE-FLIGHT INVESTIGATION OF THE DRAG COEFFICIENTS OF TWO SINGLE-ENGINE SUPERSONIC INTERCEPTOR CONFIGURATIONS FROM MACH NUMBER 0.8 TO 1.90 TO DETERMINE THE EFFECT OF INLET AND ENGINE LOCATION. APPENDIX: SEPARATION CHARACTERISTICS OF A MODEL FROM A LARGE UNDERSLUNG BOOSTER AT MACH NUMBER 1.95. Joseph H. Judd. September 1955. 49p. diagrs., photos., tabs. (NACA RM L55G05a)

THE EFFECT OF INLET INSTALLATION ON THE ZERO-LIFT DRAG OF A 60° DELTA-WING—BODY CONFIGURATION FROM FLIGHT TESTS AT MACH NUMBERS FROM 0.8 TO 1.86. Charles F. Merlet. December 1955. 29p. diagrs., photos., tabs. (NACA RM L55I09)

FLIGHT DETERMINATION OF DRAG AND PRESSURE RECOVERY OF TWO SCOOP INLETS LOCATED AT MAXIMUM-BODY-DIAMETER STATION AT MACH NUMBERS FROM 0.8 TO 1.8. Leonard W. Putland. January 1956. 24p. diagrs., photos., tab. (NACA RM L55H22a)

CRITERIA FOR INITIAL FLOW REVERSAL IN SYMMETRICAL TWIN-INTAKE AIR-INDUCTION SYSTEMS OPERATING AT SUPERSONIC SPEEDS. Andrew Beke. February 1956. 17p. diagrs. (NACA RM E55L02a)

INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF INLET LIP STAGGER ON THE INTERNAL-FLOW CHARACTERISTICS OF AN UNSWEPT SEMIELLIPTICAL AIR INLET. Gene J. Bingham and Charles D. Trescot, Jr. May 1956. 31p. diagrs., photos., tab. (NACA RM L56C22)

EFFECT OF WALL COOLING ON INLET PARAMETERS OF A SCOOP OPERATING IN A TURBULENT BOUNDARY LAYER ON A FLAT OR CONICAL SURFACE FOR MACH NUMBERS 2 TO 10. Andrew Beke. March 1958. 21p. diagrs., tabs. (NACA TN 4153)

(1.4.2) DUCTS

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. IV - RECTANGULAR-COWL INLETS WITH TWO-DIMENSIONAL COMPRESSION RAMPS. Paul C. Simon. October 1952. 35p. diagrs., photos. (NACA RM E52H29)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF A SEMIELLIPTICAL AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Robert R. Howell and Charles D. Trescot, Jr. December 1953. 39p. diagrs., photos., tabs. (NACA RM L53J22a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION ON THE AERODYNAMIC CHARACTERISTICS OF A SEMI-ELLIPTICAL SWEPTBACK WING-ROOT INLET CONFIGURATION. Arvid L. Keith, Jr. March 1954. 22p. diagrs., photos., tabs. (NACA RM L54A29)

DESIGN AND EVALUATION OF A TURBOJET EXHAUST SIMULATOR, UTILIZING A SOLID-PROPELLANT ROCKET MOTOR, FOR USE IN FREE-FLIGHT AERODYNAMIC RESEARCH MODELS. Carlos A. deMoraes, William K. Hagginbothom, Jr., and Ralph A. Falanga. December 1954. 25p. diagrs., photos. (NACA RM L54I15)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF A SEMICIRCULAR AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Charles D. Trescot, Jr., and Arvid L. Keith, Jr. March 1955. 30p. diagrs., photos., tab. (NACA RM L55A05a)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT SEMIELLIPTICAL AIR INLET IN THE ROOT OF A 45° SWEPTBACK WING. Gene J. Bingham. September 1955. 37p. diagrs., photos., tabs. (NACA RM L55F22a)

AN INVESTIGATION OF FLOW IN CIRCULAR AND ANNULAR 90° BENDS WITH A TRANSITION IN CROSS SECTION. Stafford W. Wilbur. August 1957. 32p. diagrs., photos., tabs. (NACA TN 3995)

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SOME SHROUD DESIGN VARIABLES ON THE STATIC THRUST CHARACTERISTICS OF A SMALL-SCALE SHROUDED PROPELLER SUBMERGED IN A WING. Robert T. Taylor. January 1958. 23p. diagrs., photos. (NACA TN 4126)

TURBULENT FLOW THROUGH POROUS RESISTANCES SLIGHTLY INCLINED TO THE FLOW DIRECTION. Albert L. Loeffler, Jr., and Morris Perlmutter. February 1958. 30p. diagrs., photos. (NACA TN 4221)

ON PAIRS OF SOLUTIONS OF A CLASS OF INTERNAL VISCOUS FLOW PROBLEMS WITH BODY FORCES. Simon Ostrach and Lynn U. Albers. June 1958. 21p. diagrs., tabs. (NACA TN 4273)

APPLICATION OF THE METHOD OF COORDINATE PERTURBATION TO UNSTEADY DUCT FLOW. Seymour C. Himmel, Case Institute of Technology. September 1958. (i), 152p. diagrs., tabs. (NACA TM 1439)

INVESTIGATION OF BOILING BURNOUT AND FLOW STABILITY FOR WATER FLOWING IN TUBES. Warren H. Lowdermilk, Chester D. Lanzo, and Byron L. Siegel. September 1958. 51p. diagrs., tabs. (NACA TN 4382)

(1.4.2.1) DIFFUSERS

EXPERIMENTAL INVESTIGATION OF TAIL-PIPE-BURNER DESIGN VARIABLES. W. A. Fleming, E. William Conrad, and A. W. Young. March 5, 1951. 75p. diagrs., photos., tab. (NACA RM E50K22)

AN INVESTIGATION AT MACH NUMBERS 2.98 AND 2.18 OF AXIALLY SYMMETRIC FREE-JET DIFFUSION WITH A RAM-JET ENGINE. Henry R. Hunczak. February 1952. 30p. photos., diagrs. (NACA RM E51L24)

AN INVESTIGATION OF THE STREAM-TUBE POWER LOSSES AND AN IMPROVEMENT OF THE DIFFUSER-ENTRANCE NOSE IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Richard T. Whitcomb, Melvin M. Carmel, and Francis G. Morgan, Jr. August 1952. 70p. diagrs., photos., tabs. (NACA RM L52E20)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. IV - RECTANGULAR-COWL INLETS WITH TWO-DIMENSIONAL COMPRESSION RAMPS. Paul C. Simon. October 1952. 35p. diagrs., photos. (NACA RM E52H29)

TRANSONIC FLIGHT TESTS TO DETERMINE ZERO-LIFT DRAG AND PRESSURE RECOVERY OF NACELLES LOCATED AT THE WING ROOT ON A 45° SWEPTBACK WING AND BODY CONFIGURATION. Sherwood Hoffman and Austin L. Wolff. September 1953. 31p. diagrs., photos., tabs. (NACA RM L53H20)

INVESTIGATION OF TRANSLATING-SPIKE SUPERSONIC INLET AS MEANS OF MASS-FLOW CONTROL AT MACH NUMBERS OF 1.5, 1.8, AND 2.0. Gerald C. Gorton. October 1953. 23p. diagrs., photos., tabs. (NACA RM E53G10)

PERFORMANCE OF A 16-INCH RAM-JET ENGINE WITH A CAN-TYPE COMBUSTOR AT MACH NUMBERS OF 1.50 TO 2.16. Donald P. Hearth and Eugene Perchonok. August 1954. 30p. diagrs. (NACA RM E54G13)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SOME SHROUD DESIGN VARIABLES ON THE STATIC THRUST CHARACTERISTICS OF A SMALL-SCALE SHROUDED PROPELLER SUBMERGED IN A WING. Robert T. Taylor. January 1958. 23p. diagrs., photos. (NACA TN 4126)

APPLICATION OF THE METHOD OF COORDINATE PERTURBATION TO UNSTEADY DUCT FLOW. Seymour C. Himmel, Case Institute of Technology. September 1958. (i), 152p. diagrs., tabs. (NACA TM 1439)

(1.4.2.1.1) Subsonic

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. I - CONICAL SPIKE ALL-EXTERNAL COMPRESSION INLET WITH SUBSONIC COWL LIP. Fred T. Esenwein and Alfred S. Valerino. January 19, 1951. 73p. diagrs., photos., tabs. (NACA RM E50J26)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. II - ISENTROPIC-SPIKE ALL-EXTERNAL COMPRESSION INLET. L. J. Obery and G. W. Englert. February 9, 1951. 67p. diagrs., photos., tabs. (NACA RM E50J26a)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. III - CONICAL-SPIKE ALL-EXTERNAL-COMPRESSION INLET WITH SUPERSONIC COWL LIP. Maynard I. Weinstein and Joseph Davids. February 14, 1951. 51p. diagrs., tabs. (NACA RM E50J30)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. IV - CONICAL-SPIKE EXTERNAL-INTERNAL COMPRESSION INLET UTILIZING PERFORATED COWL. Robert T. Madden and Emil J. Kremzier. March 28, 1951. 46p. diagrs., photos., tabs. (NACA RM E51B05)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. II - INLETS UTILIZING HALF OF A CONICAL SPIKE. J. L. Allen and P. C. Simon. September 1952. 49p. diagrs., photos., tab. (NACA RM E52G08)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.00 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. III - NORMAL-WEDGE INLET WITH SEMICIRCULAR COWL. Fred T. Esenwein. October 1952. 43p. diagrs., photos. (NACA RM E52H20)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

FORCE AND PRESSURE RECOVERY CHARACTERISTICS AT SUPERSONIC SPEEDS OF A CONICAL SPIKE INLET WITH BYPASSES DISCHARGING IN AN AXIAL DIRECTION. J. L. Allen and Andrew Beke. January 1953. 27p. diagrs., photos., tab. (NACA RM E52K14)

EFFECT OF DIFFUSER DESIGN, DIFFUSER-EXIT VELOCITY PROFILE, AND FUEL DISTRIBUTION ON ALTITUDE PERFORMANCE OF SEVERAL AFTERBURNER CONFIGURATIONS. E. William Conrad, Frederick W. Schulze, and Karl H. Usow. July 1953. 63p. diagrs., photos., tab. (NACA RM E53A30)

AN ANALYTICAL STUDY OF THE COMPARATIVE PERFORMANCE OF SIX AIR-INDUCTION SYSTEMS FOR TURBOJET-POWERED AIRPLANES DESIGNED TO OPERATE AT MACH NUMBERS UP TO 2.0. Earl C. Watson. October 1953. 46p. diagrs. (NACA RM A53H03)

EXPERIMENTAL INVESTIGATION OF SCREECHING COMBUSTION IN FULL-SCALE AFTERBURNER. Karl H. Usow, Carl L. Meyer, and Frederick W. Schulze. December 1953. 62p. diagrs., photos., tab. (NACA RM E53I01)

INVESTIGATION OF CONICAL SUBSONIC DIFFUSERS FOR RAM-JET ENGINES. John M. Farley and Henry J. Welna. March 1954. 40p. diagrs., photos., tabs. (NACA RM E53L15).

PERFORMANCE CHARACTERISTICS OF SEVERAL SHORT ANNULAR DIFFUSERS FOR TURBOJET ENGINE AFTERBURNERS. William E. Mallett and James L. Harp, Jr. May 1954. 31p. diagrs., photo. (NACA RM E54B09)

EFFECT OF MECHANICALLY INDUCED SINUSOIDAL AIR-FLOW OSCILLATIONS ON OPERATION OF A RAM-JET ENGINE. E. E. Dangle, A. J. Cervenka, and Eugene Perchonok. June 1954. 24p. diagrs., tab. (NACA RM E54D01)

PRELIMINARY INVESTIGATION AT MACH NUMBER 1.9 OF SIMULATED WING-ROOT INLETS. Thomas G. Piercy and Maynard I. Weinstein. January 1955. 60p. diagrs., photos., tab. (NACA RM E54I24)

A PRELIMINARY INVESTIGATION OF METHODS FOR IMPROVING THE PRESSURE-RECOVERY CHARACTERISTICS OF VARIABLE-GEOMETRY SUPERSONIC-SUBSONIC DIFFUSER SYSTEMS. Lowell E. Hasel and Archibald R. Sinclair. October 1957. 57p. diagrs., photos. (NACA RM L57H02)

AN APPROXIMATE METHOD FOR DESIGN OR ANALYSIS OF TWO-DIMENSIONAL SUBSONIC-FLOW PASSAGES. E. Floyd Valentine. April 1958. 38p. diagrs., photo. (NACA TN 4241)

SOME EFFECTS OF VANES AND OF TURBULENCE IN TWO-DIMENSIONAL WIDE-ANGLE SUBSONIC DIFFUSERS. Carl A. Moore, Jr., and Stephen J. Kline, Stanford University. June 1958. iii, 139p. diagrs., photos., tabs., film suppl. available on request. (NACA TN 4080)

USE OF SHORT FLAT VANES FOR PRODUCING EFFICIENT WIDE-ANGLE TWO-DIMENSIONAL SUBSONIC DIFFUSERS. D. L. Cochran and S. J. Kline, Stanford University. September 1958. 135p. diagrs., photos., tabs. (NACA TN 4309)

(1.4.2.1.2) Supersonic

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. I - CONICAL SPIKE ALL-EXTERNAL COMPRESSION INLET WITH SUBSONIC COWL LIP. Fred T. Esenwein and Alfred S. Valerino. January 19, 1951. 73p. diagrs., photos., tabs. (NACA RM E50J26)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. II - ISENTROPIC-SPIKE ALL-EXTERNAL COMPRESSION INLET. L. J. Obery and G. W. Englert. February 9, 1951. 67p. diagrs., photos., tabs. (NACA RM E50J26a)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. III - CONICAL-SPIKE ALL-EXTERNAL-COMPRESSION INLET WITH SUPERSONIC COWL LIP. Maynard I. Weinstein and Joseph Davids. February 14, 1951. 51p. diagrs., tabs. (NACA RM E50J30)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. IV - CONICAL-SPIKE EXTERNAL-INTERNAL COMPRESSION INLET UTILIZING PERFORATED COWL. Robert T. Madden and Emil J. Kremzier. March 28, 1951. 46p. diagrs., photos., tabs. (NACA RM E51B05)

DESIGN AND PERFORMANCE OF AN EXPERIMENTAL AXIAL-DISCHARGE MIXED-FLOW COMPRESSOR. III - OVER-ALL PERFORMANCE OF IMPELLER AND SUPERSONIC-DIFFUSER COMBINATION. Ward W. Wilcox and William H. Robbins. April 30, 1951. 26p. diagrs., photo. (NACA RM E51A02)

INVESTIGATION OF OFF-DESIGN PERFORMANCE OF SHOCK-IN-ROTOR TYPE SUPERSONIC BLADING. Robert C. Graham, John F. Klapproth, and Frank J. Barina. May 7, 1951. 25p. diagrs., photos. (NACA RM E51C22)

INTERNAL FLOW AND BURNING CHARACTERISTICS OF 16-INCH RAM JET OPERATING IN A FREE JET AT MACH NUMBERS OF 1.35 AND 1.73. Eugene Perchonok and John M. Farley. May 21, 1951. 37p. diagrs., photos., tab. (NACA RM E51C16)

INVESTIGATION AT MACH NUMBER 1.88 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. H. Fred Goelzer and Edgar M. Cortright, Jr. September 1951. 38p. diagrs., photos. (NACA RM E51G06)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF INLET-ENGINE MATCHING FOR TURBOJET-POWERED AIRCRAFT AT MACH NUMBERS UP TO 2.0. Carl F. Schueller and Fred T. Esenwein. February 1952. 31p. diagrs., photos. (NACA RM E51K20)

PERFORMANCE OF AN IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH STATORS. John F. Klapproth, Guy N. Ullman, and Edward R. Tysl. April 1952. 22p. diagrs., photo. (NACA RM E52B22)

EVALUATION OF FIVE CONICAL CENTER-BODY SUPERSONIC DIFFUSERS AT SEVERAL ANGLES OF ATTACK. Gerald W. Englert and Leonard J. Obery. May 1952. 29p. diagrs., photos., tab. (NACA RM E51L04)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. I - TWO-DIMENSIONAL COMPRESSION-RAMP INLETS WITH SEMICIRCULAR COWLS. Alfred S. Valerino. July 1952. 43p. diagrs., photos., tab. (NACA RM E52E02)

PRELIMINARY INVESTIGATION OF EFFECT OF ANGLE OF ATTACK ON PRESSURE RECOVERY AND STABILITY CHARACTERISTICS FOR A VERTICAL-WEDGE-NOSE INLET AT MACH NUMBER OF 1.90. L. Abbott Leissler and Donald P. Hearth. August 1952. 11p. diagrs., photos. (NACA RM E52E14)

INVESTIGATION AT MACH NUMBER 2.93 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. Thomas G. Piercy and Harry W. Johnson. September 1952. 39p. diagrs., photos. (NACA RM E52G23)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. IV - RECTANGULAR-COWL INLETS WITH TWO-DIMENSIONAL COMPRESSION RAMPS. Paul C. Simon.- October 1952. 35p. diagrs., photos. (NACA RM E52H29)

SOME OBSERVATIONS OF FLOW AT THE THROAT OF A TWO-DIMENSIONAL DIFFUSER AT THE MACH NUMBER OF 3.85. James F. Connors and Richard R. Woollett. November 1952. 13p. photos., diagrs. (NACA RM E52I04)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF INLET ASYMMETRY ON THE PERFORMANCE OF CONVERGING-DIVERGING DIFFUSERS AT TRANSONIC SPEEDS. John S. Dennard and William J. Nelson. November 1952. 30p. diagrs., photos., tab. (NACA RM L52J20)

INVESTIGATION AT SUPERSONIC SPEEDS OF AN INLET EMPLOYING CONICAL FLOW SEPARATION FROM A PROBE AHEAD OF A BLUNT BODY. Donald P. Hearth and Gerald C. Gorton. January 1953. 32p. diagrs., photos., tab. (NACA RM E52K18)

INVESTIGATION OF PRESSURE RECOVERY OF A SINGLE-CONICAL-SHOCK NOSE INLET AT MACH NUMBER 5.4. Harry Bernstein and Rudolph C. Haefeli. April 1953. 22p. diagrs., photos. (NACA RM E53A12)

INVESTIGATION OF A HALF-CONICAL SCOOP INLET MOUNTED AT FIVE ALTERNATE CIRCUMFERENTIAL LOCATIONS AROUND A CIRCULAR FUSELAGE. PRESSURE-RECOVERY RESULTS AT A MACH NUMBER OF 2.01. Lowell E. Hasel, John L. Lankford, and A. W. Robins. June 1953. 41p. diagrs., photos., tab. (NACA RM L53D30b)

INVESTIGATION OF 16-INCH IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH ROTOR TURNING PAST AXIAL DIRECTION. John J. Jacklitch, Jr., and Melvin J. Hartmann. July 1953. 29p. diagrs., photos. (NACA RM E53D13)

A PRELIMINARY INVESTIGATION AT MACH NUMBER 1.91 OF AN INLET CONFIGURATION DESIGNED FOR INSENSITIVITY TO POSITIVE ANGLE-OF-ATTACK OPERATION. Milton A. Beheim. July 1953. 18p. diagrs., photos. (NACA RM E53E20)

THE EFFECT OF INITIAL RATE OF SUBSONIC DIFFUSION ON THE STABLE SUBCRITICAL MASS-FLOW RANGE OF A CONICAL SHOCK DIFFUSER. J. C. Nettles. July 1953. 23p. diagrs. (NACA RM E53E26)

A COMPARISON OF SEVERAL SYSTEMS OF BOUNDARY-LAYER REMOVAL AHEAD OF A TYPICAL CONICAL EXTERNAL-COMPRESSION SIDE INLET AT MACH NUMBERS OF 1.88 AND 2.93. Thomas G. Piercy and Harry W. Johnson. September 1953. 58p. diagrs., photos. (NACA RM E53F16)

UTILIZATION OF EXTERNAL-COMPRESSION DIFFUSION PRINCIPLE IN DESIGN OF SHOCK-IN-ROTOR SUPERSONIC COMPRESSOR BLADING. John W. R. Creagh and John F. Klapproth. September 1953. 37p. diagrs., photos., tab. (NACA RM E53F18)

EFFECT OF CIRCUMFERENTIAL LOCATION ON ANGLE OF ATTACK PERFORMANCE OF TWIN HALF-CONICAL SCOOP-TYPE INLETS MOUNTED SYMMETRICALLY ON THE RM-10 BODY OF REVOLUTION. Alfred S. Valerino, Donald B. Pennington, and Donald J. Vargo. September 1953. 37p. diagrs., photos. (NACA RM E53G09)

AN ANALYTICAL STUDY OF THE COMPARATIVE PERFORMANCE OF SIX AIR-INDUCTION SYSTEMS FOR TURBOJET-POWERED AIRPLANES DESIGNED TO OPERATE AT MACH NUMBERS UP TO 2.0. Earl C. Watson. October 1953. 46p. diagrs. (NACA RM A53H03)

PRELIMINARY INVESTIGATION OF THE TOTAL-PRESSURE-RECOVERY CHARACTERISTICS OF A SYMMETRIC AND AN ASYMMETRIC NOSE INLET OVER A WIDE RANGE OF ANGLE OF ATTACK AT SUPERSONIC MACH NUMBERS. Howard S. Carter and Charles F. Merlet. December 1953. 27p. diagrs., photo. (NACA RM L53J30)

INVESTIGATION OF A TRANSLATING-CONE INLET AT MACH NUMBERS FROM 1.5 TO 2.0. L. Abbott Leissler and William H. Sterbentz. May 1954. 29p. diagrs., photos., tab. (NACA RM E54B23)

AN EXPERIMENTAL INVESTIGATION OF TWO-DIMENSIONAL, SUPERSONIC CASCADE-TYPE INLETS AT A MACH NUMBER OF 3.11. Edward Offenhartz. August 1954. 29p. diagrs., photos. (NACA RM L54E17)

INVESTIGATION OF SUPERSONIC-COMPRESSOR ROTORS DESIGNED WITH EXTERNAL COMPRESSION. Lawrence J. Jahnsen and Melvin J. Hartmann. September 1954. 41p. diagrs., photos. (NACA RM E54G27a)

PERFORMANCE OF A SUPERSONIC RAMP INLET WITH INTERNAL BOUNDARY-LAYER SCOOP. Robert C. Campbell. November 1954. 14p. diagrs., photo. (NACA RM E54I01)

PRELIMINARY INVESTIGATION AT MACH NUMBER 1.9 OF SIMULATED WING-ROOT INLETS. Thomas G. Piercy and Maynard I. Weinstein. January 1955. 60p. diagrs., photos., tab. (NACA RM E54I24)

PRELIMINARY INVESTIGATION OF A TECHNIQUE OF PRODUCING A HEATED CORE IN A SUPERSONIC WIND-TUNNEL STREAM. Morris D. Rousso and Milton A. Beheim. February 1955. 22p. photos., diagrs. (NACA RM E54K02)

A VARIABLE-GEOMETRY AXISYMMETRIC SUPERSONIC INLET WITH TELESCOPING CENTERBODY. James F. Connors and Rudolph C. Meyer. September 1955. 27p. diagrs., photos., tabs. (NACA RM E55F30)

PRELIMINARY ATTEMPTS AT ISOTHERMAL COMPRESSION OF A SUPERSONIC AIR STREAM. E. Perchonok and F. Wilcox. January 1956. 33p. diagrs., photos., tab. (NACA RM E55I29a)

AN ANALOG STUDY OF A SHOCK-POSITION DIFFUSER CONTROL ON A SUPERSONIC TURBOJET ENGINE. David Novik. August 1956. 27p. diagrs. (NACA RM E56E09a)

EFFECT OF FUSELAGE CIRCUMFERENTIAL INLET LOCATION ON DIFFUSER-DISCHARGE TOTAL-PRESSURE PROFILES AT SUPERSONIC SPEEDS. Emil J. Kremzier and Joseph F. Wasserbauer. October 1956. 14p. diagrs. (NACA RM E56G26)

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

A PRELIMINARY INVESTIGATION OF METHODS FOR IMPROVING THE PRESSURE-RECOVERY CHARACTERISTICS OF VARIABLE-GEOMETRY SUPERSONIC-SUBSONIC DIFFUSER SYSTEMS. Lowell E. Hasel and Archibald R. Sinclair. October 1957. 57p. diagrs., photos. (NACA RM L57H02)

(1.4.2.2) NOZZLES

EXPERIMENTAL INVESTIGATION OF TAIL-PIPE-BURNER DESIGN VARIABLES. W. A. Fleming, E. William Conrad, and A. W. Young. March 5, 1951. 75p. diagrs., photos., tab. (NACA RM E50K22)

AIR-FLOW AND POWER CHARACTERISTICS OF THE LANGLEY 16-FOOT TRANSONIC TUNNEL WITH SLOTTED TEST SECTION. Vernon G. Ward, Charles F. Whitcomb, and Merwin D. Pearson. July 1952. 50p. diagrs., photos. (NACA RM L52E01)

SPREADING OF EXHAUST JET FROM 16-INCH RAM JET AT MACH NUMBER 2.0. Fred Wilcox and Donald Pennington. August 1952. 14p. diagrs. photo., tab. (NACA RM E52F25)

AN INVESTIGATION OF THE STREAM-TUBE POWER LOSSES AND AN IMPROVEMENT OF THE DIFFUSER-ENTRANCE NOSE IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Richard T. Whitcomb, Melvin M. Carmel, and Francis G. Morgan, Jr. August 1952. 70p. diagrs., photos., tabs. (NACA RM L52E20)

INTERNAL PERFORMANCE OF SEVERAL TYPES OF JET-EXIT CONFIGURATIONS FOR SUPERSONIC TURBOJET AIRCRAFT. William A. Fleming. January 1953. 28p. diagrs. (NACA RM E52K04)

INTERNAL PERFORMANCE CHARACTERISTICS OF VARIABLE-THROAT PLUG- AND VANED-TYPE CONVERGENT-DIVERGENT NOZZLES. H. George Krull, Fred W. Steffen, and Carl C. Ciepluch. June 1953. 34p. diagrs., photo. (NACA RM E53D09)

PERFORMANCE CHARACTERISTICS OF A DOUBLE-CYLINDRICAL-SHROUD EJECTOR NOZZLE. Eli Reshotko. November 1953. 57p. diagrs., tab. (NACA RM E53H28)

PRELIMINARY INVESTIGATION OF PERFORMANCE OF VARIABLE-THROAT EXTENDED-PLUG-TYPE NOZZLES OVER WIDE RANGE OF NOZZLE PRESSURE RATIOS. Carl C. Ciepluch, H. George Krull, and Fred W. Steffen. February 1954. 35p. diagrs., photos., tab. (NACA RM E53J28)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

EFFECT OF JET-NOZZLE-EXPANSION RATIO ON DRAG OF PARABOLIC AFTERBODIES. Gerald W. Englert, Donald J. Vargo, and Robert W. Cubbison. April 1954. 26p. diagrs., photos. (NACA RM E54B12)

EFFECT OF PLUG DESIGN ON PERFORMANCE CHARACTERISTICS OF CONVERGENT-PLUG EXHAUST NOZZLES. H. George Krull and William T. Beale. October 1954. 22p. diagrs., photos., tab. (NACA RM E54H05)

EXPERIMENTAL DATA FOR FOUR FULL-SCALE CONICAL COOLING-AIR EJECTORS. C. C. Ciepluch and D. B. Fenn. November 1954. 41p. diagrs., photo., tab. (NACA RM E54F02)

EFFECT OF DIVERGENCE ANGLE ON THE INTERNAL PERFORMANCE CHARACTERISTICS OF SEVERAL CONICAL CONVERGENT-DIVERGENT NOZZLES. Fred W. Steffen, H. George Krull, and Ralph F. Schmiedlin. November 1954. 24p. diagrs. (NACA RM E54H25)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE EFFECT OF JET MACH NUMBER AND DIVERGENCE ANGLE OF THE NOZZLE UPON THE PRESSURE OF THE BASE ANNULUS OF A BODY OF REVOLUTION. August F. Bromm, Jr., and Robert M. O'Donnell. December 1954. 24p. diagrs., photos. (NACA RM L54I16)

SOME STUDIES OF AXISYMMETRIC FREE JETS EXHAUSTING FROM SONIC AND SUPERSONIC NOZZLES INTO STILL AIR AND INTO SUPERSONIC STREAMS. Eugene S. Love and Carl E. Grigsby. May 1955. ii, 178p. diagrs., photos., tabs. (NACA RM L54L31)

A METHOD FOR THE DESIGN OF POROUS-WALL WIND TUNNELS. George M. Stokes. January 1956. 50p. diagrs., photo., tabs. (NACA RM L55J13a)

INITIAL INCLINATION OF THE MIXING BOUNDARY SEPARATING AN EXHAUSTING SUPERSONIC JET FROM A SUPERSONIC AMBIENT STREAM. Eugene S. Love. January 1956. 30p. diagrs. (NACA RM L55J14)

JET EFFECTS ON BASE AND AFTERBODY PRESSURES OF A CYLINDRICAL AFTERBODY AT TRANSONIC SPEEDS. James M. Cubbage, Jr. May 1956. 50p. diagrs., photos. (NACA RM L56C21)

INTERNAL PERFORMANCE CHARACTERISTICS OF SHORT CONVERGENT-DIVERGENT EXHAUST NOZZLES DESIGNED BY THE METHOD OF CHARACTERISTICS. H. George Krull and William T. Beale. July 1956. 17p. diagrs. (NACA RM E56D27a)

EFFECTS OF EXTERNAL STREAM FLOW AND AFTERBODY VARIATIONS ON THE PERFORMANCE OF A PLUG NOZZLE AT HIGH SUBSONIC SPEEDS. R. J. Salmi and E. M. Cortright, Jr. October 1956. 19p. diagrs. (NACA RM E56F11a)

EFFECT OF SEVERAL DESIGN VARIABLES ON INTERNAL PERFORMANCE OF CONVERGENT-PLUG EXHAUST NOZZLES. H. George Krull, William T. Beale, and Ralph F. Schmiedlin. October 1956. 33p. diagrs., photos., tab. (NACA RM E56G20)

BOUNDARIES OF SUPERSONIC AXISYMMETRIC FREE JETS. Eugene S. Love, Mildred J. Woodling, and Louise P. Lee. October 1956. 98p. diagrs. (NACA RM L56G18)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. Walton L. Howes, Edmund E. Callaghan, Willard D. Coles, and Harold R. Mull. Appendix B: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. 1957. ii, 35p. diagrs., photos., tab. (NACA Rept. 1338. Supersedes TN 3763 and TN 3764)

SHAPE OF INITIAL PORTION OF BOUNDARY OF SUPERSONIC AXISYMMETRIC FREE JETS AT LARGE JET PRESSURE RATIOS. Eugene S. Love and Louise P. Lee. January 1958. 29p. diagrs. (NACA TN 4195)

LIMITED INVESTIGATION OF NOISE SUPPRESSION BY INJECTION OF WATER INTO EXHAUST OF AFTERBURNING JET ENGINE. Max C. Kurbjun. February 1958. 15p. diagrs., photo. (NACA RM L57L05)

ACOUSTIC, THRUST, AND DRAG CHARACTERISTICS OF SEVERAL FULL-SCALE NOISE SUPPRESSORS FOR TURBOJET ENGINES. Carl C. Ciepluch, Warren J. North, Willard D. Coles, and Robert J. Antl. April 1958. 48p. diagrs., photos. (NACA TN 4261)

TRANSONIC DRAG OF SEVERAL JET-NOISE SUPPRESSORS. Warren J. North. April 1958. 34p. diagrs., photos. (NACA TN 4269)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF SEVERAL JET DEFLECTORS AT PRIMARY-NOZZLE PRESSURE RATIOS UP TO 3.0. Jack G. McArdle. June 1958. ii, 107p. diagrs., photos., tabs. (NACA TN 4264)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF AN AERODYNAMICALLY CONTROLLED, VARIABLE-DISCHARGE CONVERGENT NOZZLE. Jack G. McArdle. July 1958. 33p. diagrs., photo., tabs. (NACA TN 4312)

EXPERIMENTAL INVESTIGATION OF AXIAL AND NORMAL FORCE CHARACTERISTICS OF SKEWED NOZZLES. David J. Carter, Jr., and Allen R. Vick. September 1958. 40p. diagrs., photos. (NACA TN 4336)

EFFECTS OF GROUND PROXIMITY ON THE THRUST OF A SIMPLE DOWNWARD-DIRECTED JET BENEATH A FLAT SURFACE. Kenneth P. Spreemann and Irving R. Sherman. September 1958. 39p. diagrs., photos. (NACA TN 4407)

(1.4.2.3) PIPES

THE PRINCIPLES OF TURBULENT HEAT TRANSFER. (Die Grundlagen des Turbulenten Warmeuberganges.) H. Reichardt. September 1957. 45p. diagrs., tabs. (NACA TM 1408. Translation from Archiv fur die gesamte Warmetechnik, no. 6/7, 1951, p. 129-142)

VELOCITY AND FRICTION CHARACTERISTICS OF LAMINAR VISCOUS BOUNDARY-LAYER AND CHANNEL FLOW OVER SURFACES WITH EJECTION OR SUCTION. E. R. G. Eckert, Patrick L. Donoughe and Betty Jo Moore. December 1957. 57p. diagrs., tabs. (NACA TN 4102)

ON FULLY DEVELOPED CHANNEL FLOWS: SOME SOLUTIONS AND LIMITATIONS, AND EFFECTS OF COMPRESSIBILITY, VARIABLE PROPERTIES, AND BODY FORCES. Stephen H. Maslen. September 1958. 46p. diagrs., tabs. (NACA TN 4319)

INVESTIGATION OF BOILING BURNOUT AND FLOW STABILITY FOR WATER FLOWING IN TUBES. Warren H. Lowdermilk, Chester D. Lanzo, and Byron L. Siegel. September 1958. 51p. diagrs., tabs. (NACA TN 4382)

(1.4.2.4)
BENDS

AN INVESTIGATION OF FLOW IN CIRCULAR AND ANNULAR 90° BENDS WITH A TRANSITION IN CROSS SECTION. Stafford W. Wilbur. August 1957. 32p. diagrs., photos., tabs. (NACA TN 3995)

AN APPROXIMATE METHOD FOR DESIGN OR ANALYSIS OF TWO-DIMENSIONAL SUBSONIC-FLOW PASSAGES. E. Floyd Valentine. April 1958. 38p. diagrs., photo. (NACA TN 4241)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF SEVERAL JET DEFLECTORS AT PRIMARY-NOZZLE PRESSURE RATIOS UP TO 3.0. Jack G. McArdle. June 1958. ii, 107p. diagrs., photos., tabs. (NACA TN 4264)

(1.4.3)
EXITS

INVESTIGATION AT MACH NUMBER 1.91 OF SIDE AND BASE PRESSURE DISTRIBUTIONS OVER CONICAL BOATTAILS WITHOUT AND WITH JET FLOW ISSUING FROM BASE. Edgar M. Cortright, Jr., and Albert H. Schroeder. September 1951. 59p. diagrs., photos. (NACA RM E51F26)

INTERNAL PERFORMANCE OF SEVERAL TYPES OF JET-EXIT CONFIGURATIONS FOR SUPERSONIC TURBOJET AIRCRAFT. William A. Fleming. January 1953. 28p. diagrs. (NACA RM E52K04)

INTERNAL PERFORMANCE CHARACTERISTICS OF VARIABLE-THROAT PLUG- AND VANED-TYPE CONVERGENT-DIVERGENT NOZZLES. H. George Krull, Fred W. Steffen, and Carl C. Ciepluch. June 1953. 34p. diagrs., photo. (NACA RM E53D09)

JET EFFECTS ON FLOW OVER AFTERBODIES IN SUPERSONIC STREAM. Edgar M. Cortright, Jr., and Fred D. Kochendorfer. November 1953. 31p. diagrs., photos. (NACA RM E53H25)

PERFORMANCE CHARACTERISTICS OF A DOUBLE-CYLINDRICAL-SHROUD EJECTOR NOZZLE. Eli Reshotko. November 1953. 57p. diagrs., tab. (NACA RM E53H28)

PRELIMINARY INVESTIGATION OF PERFORMANCE OF VARIABLE-THROAT EXTENDED-PLUG-TYPE NOZZLES OVER WIDE RANGE OF NOZZLE PRESSURE RATIOS. Carl C. Ciepluch, H. George Krull, and Fred W. Steffen. February 1954. 35p. diagrs., photos., tab. (NACA RM E53J28)

EFFECT OF JET-NOZZLE-EXPANSION RATIO ON DRAG OF PARABOLIC AFTERBODIES. Gerald W. Englert, Donald J. Vargo, and Robert W. Cubbison. April 1954. 26p. diagrs., photos. (NACA RM E54B12)

JET EFFECTS ON PRESSURE LOADING OF ALL-MOVABLE HORIZONTAL STABILIZER. Alfred S. Valerino. June 1954. 27p. diagrs., photo., tab. (NACA RM E54C24)

PUMPING AND DRAG CHARACTERISTICS OF AN AIRCRAFT EJECTOR AT SUBSONIC AND SUPERSONIC SPEEDS. Gerald C. Gorton. June 1954. 19p. diagrs. (NACA RM E54D06)

PRELIMINARY WIND-TUNNEL INVESTIGATION OF TWO TYPES OF JET-EXIT CONFIGURATIONS FOR CONTROL OF AIRCRAFT. Gerald W. Englert and L. Abbott Leissler. August 1954. 20p. diagrs. (NACA RM E54E27)

EFFECT OF PLUG DESIGN ON PERFORMANCE CHARACTERISTICS OF CONVERGENT-PLUG EXHAUST NOZZLES. H. George Krull and William T. Beale. October 1954. 22p. diagrs., photos., tab. (NACA RM E54H05)

EFFECT OF DIVERGENCE ANGLE ON THE INTERNAL PERFORMANCE CHARACTERISTICS OF SEVERAL CONICAL CONVERGENT-DIVERGENT NOZZLES. Fred W. Steffen, H. George Krull, and Ralph F. Schmiedlin. November 1954. 24p. diagrs. (NACA RM E54H25)

EXPERIMENTAL INVESTIGATION OF DRAG OF AFTERBODIES WITH EXITING JET AT HIGH SUBSONIC MACH NUMBERS. Reino J. Salmi. November 1954. 28p. diagrs., photos. (NACA RM E54I13)

DESIGN AND EVALUATION OF A TURBOJET EXHAUST SIMULATOR, UTILIZING A SOLID-PROPELLANT ROCKET MOTOR, FOR USE IN FREE-FLIGHT AERODYNAMIC RESEARCH MODELS. Carlos A. deMoraes, William K. Hagginbothom, Jr., and Ralph A. Falanga. December 1954. 25p. diagrs., photos. (NACA RM L54I15)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE EFFECT OF JET MACH NUMBER AND DIVERGENCE ANGLE OF THE NOZZLE UPON THE PRESSURE OF THE BASE ANNULUS OF A BODY OF REVOLUTION. August F. Bromm, Jr., and Robert M. O'Donnell. December 1954. 24p. diagrs., photos. (NACA RM L54I16)

JET EFFECTS ON LONGITUDINAL TRIM OF AN AIRPLANE CONFIGURATION MEASURED AT MACH NUMBERS BETWEEN 1.2 AND 1.8. Robert F. Peck. January 1955. 17p. diagrs., photos. (NACA RM L54J29a)

SOME STUDIES OF AXISYMMETRIC FREE JETS EXHAUSTING FROM SONIC AND SUPERSONIC NOZZLES INTO STILL AIR AND INTO SUPERSONIC STREAMS. Eugene S. Love and Carl E. Grigsby. May 1955. ii, 178p. diagrs., photos., tabs. (NACA RM L54L31)

MATCHING OF AUXILIARY INLETS TO SECONDARY-AIR REQUIREMENTS OF AIRCRAFT EJECTOR EXHAUST NOZZLES. Donald P. Hearth, Gerald W. Englert, and Kenneth L. Kowalski. August 1955. 39p. diagrs. (NACA RM E55D21)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF SIMULATED SONIC TURBOJET EXHAUST ON THE DRAG OF A BOATTAIL BODY WITH VARIOUS JET SIZES FROM MACH NUMBER 0.87 TO 1.50. Ralph A. Falanga. August 1955. 23p. diagrs., photos., tab. (NACA RM L55F09a)

INITIAL INCLINATION OF THE MIXING BOUNDARY SEPARATING AN EXHAUSTING SUPERSONIC JET FROM A SUPERSONIC AMBIENT STREAM. Eugene S. Love. January 1956. 30p. diagrs. (NACA RM L55J14)

RESULTS OF ROCKET MODEL TEST OF AN AIRPLANE CONFIGURATION HAVING AN ARROW WING AND SLENDER FLAT-SIDED FUSELAGE. LIFT, DRAG, LONGITUDINAL STABILITY, LATERAL FORCE, AND JET EFFECTS AT MACH NUMBERS BETWEEN 1.0 AND 2.3. Robert F. Peck. February 1956. 26p. diagrs., photo. (NACA RM L55L29)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF A SONIC JET ON THE TOTAL-DRAG AND BASE-PRESSURE COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION FROM MACH NUMBER 0.83 TO 1.70. Ralph A. Falanga. March 1956. 18p. diagrs., photo., tab. (NACA RM L55L21)

INTERACTION OF AN EXHAUST JET AND ELEMENTARY CONTOURED SURFACES LOCATED IN A SUPERSONIC AIR STREAM. Joseph F. Wasserbauer and Gerald W. Englert. April 1956. 20p. diagrs., photo. (NACA RM E56A16)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A HEATED PROPULSIVE JET ON THE PRESSURE DISTRIBUTION ALONG A FUSELAGE OVERHANG. Elden S. Cornette and Donald H. Ward. April 1956. 42p. diagrs., photos., tab. (NACA RM L56A27)

JET EFFECTS ON BASE AND AFTERBODY PRESSURES OF A CYLINDRICAL AFTERBODY AT TRANSONIC SPEEDS. James M. Cubbage, Jr. May 1956. 50p. diagrs., photos. (NACA RM L56C21)

INTERNAL PERFORMANCE CHARACTERISTICS OF SHORT CONVERGENT-DIVERGENT EXHAUST NOZZLES DESIGNED BY THE METHOD OF CHARACTERISTICS. H. George Krull and William T. Beale. July 1956. 17p. diagrs. (NACA RM E56D27a)

EFFECT OF SEVERAL DESIGN VARIABLES ON INTERNAL PERFORMANCE OF CONVERGENT-PLUG EXHAUST NOZZLES. H. George Krull, William T. Beale, and Ralph F. Schmiedlin. October 1956. 33p. diagrs., photos., tab. (NACA RM E56G20)

BOUNDARIES OF SUPERSONIC AXISYMMETRIC FREE JETS. Eugene S. Love, Mildred J. Woodling, and Louise P. Lee. October 1956. 98p. diagrs. (NACA RM L56G18)

FREE-FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF DRAG COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION WITH A SIMULATED TURBOJET EXHAUST ISSUING AT THE BASE FROM CONICAL SHORT-LENGTH EJECTORS. Ralph A. Falanga and Abraham Leiss. December 1956. 34p. diagrs., photos., tab. (NACA RM L56H23)

SUMMARY OF SCALE-MODEL THRUST-REVERSER INVESTIGATION. John H. Povolny, Fred W. Steffen, and Jack G. McArdle. 1957. ii, 14p. diagrs., photos. (NACA Rept. 1314. Supersedes TN 3664)

FAR NOISE FIELD OF AIR JETS AND JET ENGINES. Edmund E. Callaghan and Willard D. Coles. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1329. Supersedes TN 3590; TN 3591)

AN INVESTIGATION OF DISCHARGE AND THRUST CHARACTERISTICS OF FLAPPED OUTLETS FOR STREAM MACH NUMBERS FROM 0.40 TO 1.30. Allen R. Vick. July 1957. 47p. diagrs. (NACA TN 4007)

SCREEN-TYPE NOISE REDUCTION DEVICES FOR GROUND RUNNING OF TURBOJET ENGINES. Willard D. Coles and Warren J. North. July 1957. 23p. diagrs., photos. (NACA TN 4033)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SOME SHROUD DESIGN VARIABLES ON THE STATIC THRUST CHARACTERISTICS OF A SMALL-SCALE SHROUDED PROPELLER SUBMERGED IN A WING. Robert T. Taylor. January 1958. 23p. diagrs., photos. (NACA TN 4126)

SHAPE OF INITIAL PORTION OF BOUNDARY OF SUPERSONIC AXISYMMETRIC FREE JETS AT LARGE JET PRESSURE RATIOS. Eugene S. Love and Louise P. Lee. January 1958. 29p. diagrs. (NACA TN 4195)

EFFECT OF JET TEMPERATURE ON JET-NOISE GENERATION. Vern G. Rollin. March 1958. 13p. diagrs., photo. (NACA TN 4217)

ACOUSTIC, THRUST, AND DRAG CHARACTERISTICS OF SEVERAL FULL-SCALE NOISE SUPPRESSORS FOR TURBOJET ENGINES. Carl C. Ciepluch, Warren J. North, Willard D. Coles, and Robert J. Antl. April 1958. 48p. diagrs., photos. (NACA TN 4261)

TRANSONIC DRAG OF SEVERAL JET-NOISE SUPPRESSORS. Warren J. North. April 1958. 34p. diagrs., photos. (NACA TN 4269)

A PERFORMANCE ANALYSIS OF METHODS FOR HANDLING EXCESS INLET FLOW AT SUPERSONIC SPEEDS. Donald P. Hearth and James F. Connors. May 1958. 26p. diagrs., tab. (NACA TN 4270)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF SEVERAL JET DEFLECTORS AT PRIMARY-NOZZLE PRESSURE RATIOS UP TO 3.0. Jack G. McArdle. June 1958. ii, 107p. diagrs., photos., tabs. (NACA TN 4264)

USE OF THE COANDA EFFECT FOR OBTAINING JET DEFLECTION AND LIFT WITH A SINGLE FLAT-PLATE DEFLECTION SURFACE. Uwe H. von Glahn. June 1958. 49p. diagrs., tabs. (NACA TN 4272)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF AN AERODYNAMICALLY CONTROLLED, VARIABLE-DISCHARGE CONVERGENT NOZZLE. Jack G. McArdle. July 1958. 33p. diagrs., photo., tabs. (NACA TN 4312)

EXPERIMENTAL INVESTIGATION OF AXIAL AND NORMAL FORCE CHARACTERISTICS OF SKEWED NOZZLES. David J. Carter, Jr., and Allen R. Vick. September 1958. 40p. diagrs., photos. (NACA TN 4336)

USE OF THE COANDA EFFECT FOR JET DEFLECTION AND VERTICAL LIFT WITH MULTIPLE-FLAT-PLATE AND CURVED-PLATE DEFLECTION SURFACES. Uwe H. von Glahn. APPENDIX B: ESTIMATED PERFORMANCE OF MULTIPLE-FLAT-PLATE DEFLECTORS. Thomas F. Gelder. September 1958. 54p. diagrs., photo., tabs. (NACA TN 4377)

(1.4.4)
JET PUMPS AND THRUST AUGMENTORS

INVESTIGATION OF PERFORMANCE OF SEVERAL DOUBLE-SHROUD EJECTORS AND EFFECT OF VARIABLE-AREA EXHAUST NOZZLE ON SINGLE EJECTOR PERFORMANCE. C. W. Ellis, D. P. Hollister, and H. D. Wilsted. July 1952. 25p. diagrs., photos. (NACA RM E52D25)

AN INVESTIGATION OF THE STREAM-TUBE POWER LOSSES AND AN IMPROVEMENT OF THE DIFFUSER-ENTRANCE NOSE IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Richard T. Whitcomb, Melvin M. Carmel, and Francis G. Morgan, Jr. August 1952. 70p. diagrs., photos., tabs. (NACA RM L52E20)

INTERNAL PERFORMANCE OF SEVERAL TYPES OF JET-EXIT CONFIGURATIONS FOR SUPERSONIC TURBOJET AIRCRAFT. William A. Fleming. January 1953. 28p. diagrs. (NACA RM E52K04)

PERFORMANCE OF DOUBLE-SHROUD EJECTOR CONFIGURATION WITH PRIMARY PRESSURE RATIOS FROM 1.0 TO 10. Donald P. Hollister and William K. Greathouse. February 1953. 34p. diagrs., tabs. (NACA RM E52K17)

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTERBURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K26)

PERFORMANCE CHARACTERISTICS OF A DOUBLE-CYLINDRICAL-SHROUD EJECTOR NOZZLE. Eli Reshotko. November 1953. 57p. diagrs., tab. (NACA RM E53H28)

PUMPING AND THRUST CHARACTERISTICS OF SEVERAL DIVERGENT COOLING-AIR EJECTORS AND COMPARISON OF PERFORMANCE WITH CONICAL AND CYLINDRICAL EJECTORS. S. C. Huntley and Herbert Yanowitz. January 1954. 42p. diagrs. (NACA RM E53J13)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

PUMPING AND DRAG CHARACTERISTICS OF AN AIRCRAFT EJECTOR AT SUBSONIC AND SUPERSONIC SPEEDS. Gerald C. Gorton. June 1954. 19p. diagrs. (NACA RM E54D06)

EXPERIMENTAL DATA FOR FOUR FULL-SCALE CONICAL COOLING-AIR EJECTORS. C. C. Ciepluch and D. B. Fenn. November 1954. 41p. diagrs., photo., tab. (NACA RM E54F02)

MATCHING OF AUXILIARY INLETS TO SECONDARY-AIR REQUIREMENTS OF AIRCRAFT EJECTOR EXHAUST NOZZLES. Donald P. Hearth, Gerald W. Englert, and Kenneth L. Kowalski. August 1955. 39p. diagrs. (NACA RM E55D21)

FREE-FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF DRAG COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION WITH A SIMULATED TURBOJET EXHAUST ISSUING AT THE BASE FROM CONICAL SHORT-LENGTH EJECTORS. Ralph A. Falanga and Abraham Leiss. December 1956. 34p. diagrs., photos., tab. (NACA RM L56H23)

EXPERIMENTAL INVESTIGATION OF AXIAL AND NORMAL FORCE CHARACTERISTICS OF SKEWED NOZZLES. David J. Carter, Jr., and Allen R. Vick. September 1958. 40p. diagrs., photos. (NACA TN 4336)

EFFECTS OF GROUND PROXIMITY ON THE THRUST OF A SIMPLE DOWNWARD-DIRECTED JET BENEATH A FLAT SURFACE. Kenneth P. Spreemann and Irving R. Sherman. September 1958. 39p. diagrs., photos. (NACA TN 4407)

(1.4.5)
CASCADES

DIFFUSION FACTOR FOR ESTIMATING LOSSES AND LIMITING BLADE LOADINGS IN AXIAL-FLOW-COMPRESSOR BLADE ELEMENTS. Seymour Lieblein, Francis C. Schwenk, and Robert L. Broderick. June 1953. 43p. diagrs., tabs. (NACA RM E53D01)

INVESTIGATION OF AN AXIAL-FLOW COMPRESSOR ROTOR HAVING NACA HIGH-SPEED BLADE SECTIONS (A_2I_{8b} SERIES) AT MEAN RADIUS RELATIVE INLET MACH NUMBERS UP TO 1.13. Melvyn Savage, John R. Erwin, and Robert P. Whitley. November 1953. 43p. diagrs., photos., tab. (NACA RM L53G02)

GENERAL CONSIDERATIONS OF MACH NUMBER EFFECTS ON COMPRESSOR-BLADE DESIGN. John F. Klapproth. April 1954. 24p. diagrs., photos. (NACA RM E53L23a)

AN EXPERIMENTAL INVESTIGATION OF TWO-DIMENSIONAL, SUPERSONIC CASCADE-TYPE INLETS AT A MACH NUMBER OF 3.11. Edward Offenhartz. August 1954. 29p. diagrs., photos. (NACA RM L54E17)

ANALYSIS OF AERODYNAMIC BLADE-LOADING-LIMIT PARAMETERS FOR NACA 65-$(C_{l_0}A_{10})10$ COMPRESSOR-BLADE SECTIONS AT LOW SPEEDS. Melvyn Savage. April 1955. 32p. diagrs. (NACA RM L54L02a)

THROAT-AREA DETERMINATION FOR A CASCADE OF DOUBLE-CIRCULAR-ARC BLADES. Linwood C. Wright and Richard Schwind. November 1955. 20p. diagrs. (NACA RM E55H25a)

SUMMARY OF SCALE-MODEL THRUST-REVERSER INVESTIGATION. John H. Povolny, Fred W. Steffen, and Jack G. McArdle. 1957. ii, 14p. diagrs., photos. (NACA Rept. 1314. Supersedes TN 3664)

EFFECT OF SWEEP ON PERFORMANCE OF COMPRESSOR BLADE SECTIONS AS INDICATED BY SWEPT-BLADE ROTOR, UNSWEPT-BLADE ROTOR, AND CASCADE TESTS. William R. Godwin. July 1957. 43p. diagrs. (NACA TN 4062)

AERODYNAMIC FORCES ON A VIBRATING UNSTAGGERED CASCADE. (Luftkräfte an einem schwingenden Gitter.) H. Söhngen. August 1957. 16p. diagrs. (NACA TM 1412. Translation from Zeitschrift fur angewandte Mathematik und Mechanik, v.35, no.3, Mar.1955, p.81-88.)

NACA 65-SERIES COMPRESSOR ROTOR PERFORMANCE WITH VARYING ANNULUS-AREA RATIO, SOLIDITY, BLADE ANGLE, AND REYNOLDS NUMBER AND COMPARISON WITH CASCADE RESULTS. Wallace M. Schulze, John R. Erwin, and George C. Ashby, Jr. October 1957. 62p. diagrs., photos., tab. (NACA TN 4130. Supersedes RM L52L17)

EXPERIMENTAL INVESTIGATION OF AN IMPULSE-TYPE SUPERSONIC COMPRESSOR ROTOR HAVING A TURNING OF 73° AT THE MEAN RADIUS. James R. Sterrett. June 1958. 35p. diagrs., photos., tabs. (NACA TN 4252)

(1.4.5.1) THEORY

UTILIZATION OF EXTERNAL-COMPRESSION DIFFUSION PRINCIPLE IN DESIGN OF SHOCK-IN-ROTOR SUPERSONIC COMPRESSOR BLADING. John W. R. Creagh and John F. Klapproth. September 1953. 37p. diagrs., photos., tab. (NACA RM E53F18)

REVIEW OF HIGH-PERFORMANCE AXIAL-FLOW-COMPRESSOR BLADE-ELEMENT THEORY. Seymour Lieblein. April 1954. 34p. diagrs. (NACA RM E53L22)

LOW-VELOCITY TURNING AS A MEANS OF MINIMIZING BOUNDARY-LAYER ACCUMULATIONS RESULTING FROM SECONDARY FLOWS WITHIN TURBINE STATORS. Warner L. Stewart and Robert Y. Wong. May 1954. 18p. diagrs., photo. (NACA RM E54B16)

INVESTIGATION OF SUPERSONIC-COMPRESSOR ROTORS DESIGNED WITH EXTERNAL COMPRESSION. Lawrence J. Jahnsen and Melvin J. Hartmann. September 1954. 41p. diagrs., photos. (NACA RM E54G27a)

THROAT-AREA DETERMINATION FOR A CASCADE OF DOUBLE-CIRCULAR-ARC BLADES. Linwood C. Wright and Richard Schwind. November 1955. 20p. diagrs. (NACA RM E55H25a)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME I. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 406p. diagrs., photos., tab. (NACA RM E56B03)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME II. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. x, 275p. diagrs., tabs. (NACA RM E56B03a)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME III. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 364p. diagrs., photos., tabs. (NACA RM E56B03b)

AERODYNAMIC FORCES ON A VIBRATING UNSTAGGERED CASCADE. (Luftkräfte an einem schwingenden Gitter.) H. Söhngen. August 1957. 16p. diagrs. (NACA TM 1412. Translation from Zeitschrift fur angewandte Mathematik und Mechanik, v.35, no.3, Mar.1955, p.81-88.)

MAXIMUM THEORETICAL TANGENTIAL VELOCITY COMPONENT POSSIBLE FROM STRAIGHT-BACK CONVERGING AND CONVERGING-DIVERGING STATORS AT SUPERCRITICAL PRESSURE RATIOS. Thomas P. Moffitt. April 1958. 21p. diagrs. (NACA TN 4271)

STALL PROPAGATION IN A CASCADE OF AIRFOILS. Anthony R. Kriebel, Barry S. Seidel, and Richard G. Schwind, Massachusetts Institute of Technology. June 1958. 122p. diagrs., photos., tabs. (NACA TN 4134)

ANALYTICAL RELATION FOR WAKE MOMENTUM THICKNESS AND DIFFUSION RATIO FOR LOW-SPEED COMPRESSOR CASCADE BLADES. Seymour Lieblein. August 1958. 31p. diagrs. (NACA TN 4318)

COMPRESSIBLE LAMINAR FLOW AND HEAT TRANSFER ABOUT A ROTATING ISOTHERMAL DISK. Simon Ostrach and Philip R. Thornton. August 1958. 18p. diagrs., tab. (NACA TN 4320)

(1.4.5.2) EXPERIMENT

INVESTIGATION OF OFF-DESIGN PERFORMANCE OF SHOCK-IN-ROTOR TYPE SUPERSONIC BLADING. Robert C. Graham, John F. Klapproth, and Frank J. Barina. May 7, 1951. 25p. diagrs., photos. (NACA RM E51C22)

A TWO-DIMENSIONAL CASCADE STUDY OF THE AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and Cavour H. Hauser. September 1951. 15p. diagrs., photos. (NACA RM E51G18)

AN EXPERIMENTAL CASCADE STUDY OF THE EFFECTS OF A SOLIDITY REDUCTION ON THE TWO-DIMENSIONAL AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and William J. Nusbaum. May 1952. 17p. diagrs., photos. (NACA RM E52B27)

EXPERIMENTAL INVESTIGATION OF AN AXIAL-FLOW SUPERSONIC COMPRESSOR HAVING ROUNDED LEADING-EDGE BLADES WITH AN 8-PERCENT MEAN THICKNESS-CHORD RATIO. Theodore J. Goldberg, Emanuel Boxer, and Peter T. Bernot. December 1953. 43p. diagrs., photos., tab. (NACA RM L53G16)

LOW-SPEED CASCADE TESTS OF TWO 45° SWEPT COMPRESSOR BLADES WITH CONSTANT SPANWISE LOADING. Loren A. Beatty, Melvyn Savage, and James C. Emery. March 1954. 65p. diagrs., photos., tab. (NACA RM L53L07)

REVIEW OF HIGH-PERFORMANCE AXIAL-FLOW-COMPRESSOR BLADE-ELEMENT THEORY. Seymour Liebleln. April 1954. 34p. diagrs. (NACA RM E53L22)

EXPERIMENTAL INVESTIGATION OF AN AXIAL-FLOW SUPERSONIC COMPRESSOR HAVING SHARP LEADING-EDGE BLADES WITH AN 8-PERCENT MEAN THICKNESS-CHORD RATIO AND OF THE EFFECT OF A LEADING-EDGE RADIUS. Theodore J. Goldberg. February 1955. 33p. diagrs., photo. (NACA RM L54K16)

HIGH-SPEED CASCADE TESTS OF A BLADE SECTION DESIGNED FOR TYPICAL HUB CONDITIONS OF HIGH-FLOW TRANSONIC ROTORS. Melvyn Savage, A. Richard Felix, and James C. Emery. September 1955. 48p. diagrs., photos., tab. (NACA RM L55F07)

THROAT-AREA DETERMINATION FOR A CASCADE OF DOUBLE-CIRCULAR-ARC BLADES. Linwood C. Wright and Richard Schwind. November 1955. 20p. diagrs. (NACA RM E55H25a)

USE OF SHADOWGRAPH TECHNIQUE IN THE ANALYSIS OF THE PERFORMANCE OF TWO SUPERSONIC AXIAL-FLOW COMPRESSOR ROTORS OPERATING OVER A MEAN RADIUS RELATIVE INLET MACH NUMBER RANGE OF 0.85 TO 1.7. Theodore J. Goldberg and James R. Sterrett. April 1956. 48p. diagrs., photos. (NACA RM L56A05)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME I. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 406p. diagrs., photos., tab. (NACA RM E56B03)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME II. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. x, 275p. diagrs., tabs. (NACA RM E56B03a)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME III. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 364p. diagrs., photos., tabs. (NACA RM E56B03b)

ANALYSIS OF EXPERIMENTAL LOW-SPEED LOSS AND STALL CHARACTERISTICS OF TWO-DIMENSIONAL COMPRESSOR BLADE CASCADES. Seymour Lieblein. March 1957. 64p. diagrs., tabs. (NACA RM E57A28)

LOW-SPEED CASCADE INVESTIGATION OF THIN LOW-CAMBER NACA 65-SERIES BLADE SECTIONS AT HIGH INLET ANGLES. James C. Emery. June 1957. 93p. diagrs., tab. (NACA RM L57E03)

LOW-SPEED CASCADE INVESTIGATION OF COMPRESSOR BLADES HAVING LOADED LEADING EDGES. James C. Emery. January 1958. 76p. diagrs., photo., tabs. (NACA TN 4178. Supersedes RM L55J05)

STALL PROPAGATION IN A CASCADE OF AIRFOILS. Anthony R. Kriebel, Barry S. Seidel, and Richard G. Schwind, Massachusetts Institute of Technology. June 1958. 122p. diagrs., photos., tabs. (NACA TN 4134)

ANALYTICAL RELATION FOR WAKE MOMENTUM THICKNESS AND DIFFUSION RATIO FOR LOW-SPEED COMPRESSOR CASCADE BLADES. Seymour Lieblein. August 1958. 31p. diagrs. (NACA TN 4318)

PERFORMANCE AT LOW SPEEDS OF COMPRESSOR ROTORS HAVING LOW-CAMBERED NACA 65-SERIES BLADES WITH HIGH INLET ANGLES AND LOW SOLIDITIES. James C. Emery and Paul W. Howard. August 1958. 28p. diagrs. (NACA TN 4344)

(1.4.6) FANS

INVESTIGATION OF AN AXIAL-FLOW COMPRESSOR ROTOR HAVING NACA HIGH-SPEED BLADE SECTIONS (A_2I_{8b} SERIES) AT MEAN RADIUS RELATIVE INLET MACH NUMBERS UP TO 1.13. Melvyn Savage, John R. Erwin, and Robert P. Whitley. November 1953. 43p. diagrs., photos., tab. (NACA RM L53G02)

ANALYSIS OF AERODYNAMIC BLADE-LOADING-LIMIT PARAMETERS FOR NACA 65-$(C_{l_o}A_{10})$10 COMPRESSOR-BLADE SECTIONS AT LOW SPEEDS. Melvyn Savage. April 1955. 32p. diagrs. (NACA RM L54L02a)

EFFECT OF SWEEP ON PERFORMANCE OF COMPRESSOR BLADE SECTIONS AS INDICATED BY SWEPT-BLADE ROTOR, UNSWEPT-BLADE ROTOR, AND CASCADE TESTS. William R. Godwin. July 1957. 43p. diagrs. (NACA TN 4062)

PRELIMINARY INVESTIGATION OF THE CHARACTERISTICS OF A TWO-DIMENSIONAL WING AND PROPELLER WITH THE PROPELLER PLANE OF ROTATION IN THE WING-CHORD PLANE. David H. Hickey. August 1957. 12p. diagrs. (NACA RM A57F03)

(1.4.7) BOUNDARY LAYER

MATCHING OF AUXILIARY INLETS TO SECONDARY-AIR REQUIREMENTS OF AIRCRAFT EJECTOR EXHAUST NOZZLES. Donald P. Hearth, Gerald W. Englert, and Kenneth L. Kowalski. August 1955. 39p. diagrs. (NACA RM E55D21)

A METHOD FOR THE DESIGN OF POROUS-WALL WIND TUNNELS. George M. Stokes. January 1956. 50p. diagrs., photo., tabs. (NACA RM L55J13a)

APPROXIMATE CALCULATION OF THE COMPRESSIBLE TURBULENT BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Eli Reshotko and Maurice Tucker. December 1957. 34p. diagrs. (NACA TN 4154)

ON FLOW OF ELECTRICALLY CONDUCTING FLUIDS OVER A FLAT PLATE IN THE PRESENCE OF A TRANSVERSE MAGNETIC FIELD. Vernon J. Rossow. 1958. ii, 20p. diagrs., tabs. (NACA Rept. 1358. Supersedes TN 3971)

THE INTERACTION OF A REFLECTED SHOCK WAVE WITH THE BOUNDARY LAYER IN A SHOCK TUBE. Herman Mark, Cornell University. March 1958. ii, 128p. diagrs., photos., tabs. (NACA TM 1418)

AN EXPERIMENTAL STUDY OF THE TURBULENT BOUNDARY LAYER ON A SHOCK-TUBE WALL. Paul B. Gooderum. June 1958. 63p. diagrs., photos., tab. (NACA TN 4243)

ON PAIRS OF SOLUTIONS OF A CLASS OF INTERNAL VISCOUS FLOW PROBLEMS WITH BODY FORCES. Simon Ostrach and Lynn U. Albers. June 1958. 21p. diagrs., tabs. (NACA TN 4273)

PRANDTL NUMBER EFFECTS ON UNSTEADY FORCED-CONVECTION HEAT TRANSFER. E. M. Sparrow and J. L. Gregg. June 1958. 14p. diagrs., tab. (NACA TN 4311)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY-LAYER FLOW OVER DEVELOPABLE SURFACES AND WITH PROPORTIONAL MAINSTREAM VELOCITY COMPONENTS. Arthur G. Hansen, Case Institute of Technology. September 1958. (ii), 79p. diagrs. (NACA TM 1437)

NATURAL CONVECTION INSIDE A FLAT ROTATING CONTAINER. Simon Ostrach and Willis H. Braun. September 1958. 27p. diagrs. (NACA TN 4323)

A NONLINEAR THEORY FOR PREDICTING THE EFFECTS OF UNSTEADY LAMINAR, TURBULENT, OR TRANSITIONAL BOUNDARY LAYERS ON THE ATTENUATION OF SHOCK WAVES IN A SHOCK TUBE WITH EXPERIMENTAL COMPARISON. Robert L. Trimpi and Nathaniel B. Cohen. September 1958. 105p. diagrs., photos., tab. (NACA TN 4347)

SOME NUMERICAL SOLUTIONS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL LAMINAR INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Peggy L. Yohner and Arthur G. Hansen. September 1958. 76p. diagrs., tabs. (NACA TN 4370)

(1.4.7.1) CHARACTERISTICS

AN INVESTIGATION OF THE STREAM-TUBE POWER LOSSES AND AN IMPROVEMENT OF THE DIFFUSER-ENTRANCE NOSE IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Richard T. Whitcomb, Melvin M. Carmel, and Francis G. Morgan, Jr. August 1952. 70p. diagrs., photos., tabs. (NACA RM L52E20)

EFFECT OF CIRCUMFERENTIAL LOCATION ON ANGLE OF ATTACK PERFORMANCE OF TWIN HALF-CONICAL SCOOP-TYPE INLETS MOUNTED SYMMETRICALLY ON THE RM-10 BODY OF REVOLUTION. Alfred S. Valerino, Donald B. Pennington, and Donald J. Vargo. September 1953. 37p. diagrs., photos. (NACA RM E53G09)

LOW-VELOCITY TURNING AS A MEANS OF MINIMIZING BOUNDARY-LAYER ACCUMULATIONS RESULTING FROM SECONDARY FLOWS WITHIN TURBINE STATORS. Warner L. Stewart and Robert Y. Wong. May 1954. 18p. diagrs., photo. (NACA RM E54B16)

CORRELATION OF TURBINE-BLADE-ELEMENT LOSSES BASED ON WAKE MOMENTUM THICKNESS WITH DIFFUSION PARAMETER FOR A SERIES OF SUBSONIC TURBINE BLADES IN TWO-DIMENSIONAL CASCADE AND FOR FOUR TRANSONIC TURBINE ROTORS. Robert Y. Wong and Warner L. Stewart. April 1955. 31p. diagrs. (NACA RM E55B08)

A VARIABLE-GEOMETRY AXISYMMETRIC SUPERSONIC INLET WITH TELESCOPING CENTERBODY. James F. Connors and Rudolph C. Meyer. September 1955. 27p. diagrs., photos., tabs. (NACA RM E55F30)

VISUALIZATION OF ROTOR TIP SECONDARY FLOWS WITH BLADE TIP AIR DISCHARGE AND SUCTION IN A LOW-SPEED TURBINE. Milton G. Kofskey and Hubert W. Allen. August 1956. 28p. diagrs., photos. (NACA RM E56E16)

A PRELIMINARY INVESTIGATION OF METHODS FOR IMPROVING THE PRESSURE-RECOVERY CHARACTERISTICS OF VARIABLE-GEOMETRY SUPERSONIC-SUBSONIC DIFFUSER SYSTEMS. Lowell E. Hasel and Archibald R. Sinclair. October 1957. 57p. diagrs., photos. (NACA RM L57H02)

MOMENTUM TRANSFER FOR FLOW OVER A FLAT PLATE WITH BLOWING. H. S. Mickley and R. S. Davis, Massachusetts Institute of Technology. November 1957. 64p. diagrs., tabs. (NACA TN 4017)

EFFECT OF WALL COOLING ON INLET PARAMETERS OF A SCOOP OPERATING IN A TURBULENT BOUNDARY LAYER ON A FLAT OR CONICAL SURFACE FOR MACH NUMBERS 2 TO 10. Andrew Beke. March 1958. 21p. diagrs., tabs. (NACA TN 4153)

APPROXIMATE SOLUTIONS OF A CLASS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL, LAMINAR, INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Arthur G. Hansen and Howard Z. Herzig. September 1958. 26p. diagrs. (NACA TN 4375)

(1.4.7.2) CONTROL

INVESTIGATION AT MACH NUMBER 1.88 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. H. Fred Goelzer and Edgar M. Cortright, Jr. September 1951. 38p. diagrs., photos. (NACA RM E51G06)

EVALUATION OF FIVE CONICAL CENTER-BODY SUPERSONIC DIFFUSERS AT SEVERAL ANGLES OF ATTACK. Gerald W. Englert and Leonard J. Obery. May 1952. 29p. diagrs., photos., tab. (NACA RM E51L04)

EXPERIMENTAL INVESTIGATION OF AXIAL-FLOW COMPRESSOR STATOR BLADES DESIGNED TO OBTAIN HIGH TURNING ANGLES BY MEANS OF BOUNDARY-LAYER SUCTION. G. R. Costello, R. L. Cummings, and G. K. Serovy. June 1952. 22p. diagrs., photos., tab. (NACA RM E52D18)

INVESTIGATION AT MACH NUMBER 2.93 OF HALF OF A CONICAL-SPIKE DIFFUSER MOUNTED AS A SIDE INLET WITH BOUNDARY-LAYER CONTROL. Thomas G. Piercy and Harry W. Johnson. September 1952. 39p. diagrs., photos. (NACA RM E52G23)

INVESTIGATION OF A HALF-CONICAL SCOOP INLET MOUNTED AT FIVE ALTERNATE CIRCUMFERENTIAL LOCATIONS AROUND A CIRCULAR FUSELAGE. PRESSURE-RECOVERY RESULTS AT A MACH NUMBER OF 2.01. Lowell E. Hasel, John L. Lankford, and A. W. Robins. June 1953. 41p. diagrs., photos., tab. (NACA RM L53D30b)

A COMPARISON OF SEVERAL SYSTEMS OF BOUNDARY-LAYER REMOVAL AHEAD OF A TYPICAL CONICAL EXTERNAL-COMPRESSION SIDE INLET AT MACH NUMBERS OF 1.88 AND 2.93. Thomas G. Piercy and Harry W. Johnson. September 1953. 58p. diagrs., photos. (NACA RM E53F16)

INVESTIGATION AT TRANSONIC SPEEDS OF AERODYNAMIC CHARACTERISTICS OF A SEMIELLIPTICAL AIR INLET IN THE ROOT OF A 45° SWEPT-BACK WING. Robert R. Howell and Charles D. Trescot, Jr. December 1953. 39p. diagrs., photos., tabs. (NACA RM L53J22a)

PERFORMANCE OF A SUPERSONIC RAMP INLET WITH INTERNAL BOUNDARY-LAYER SCOOP. Robert C. Campbell. November 1954. 14p. diagrs., photo. (NACA RM E54I01)

EFFECT OF WALL COOLING ON INLET PARAMETERS OF A SCOOP OPERATING IN A TURBULENT BOUNDARY LAYER ON A FLAT OR CONICAL SURFACE FOR MACH NUMBERS 2 TO 10. Andrew Beke. March 1958. 21p. diagrs., tabs. (NACA TN 4153)

(1.5)
Propellers

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SOME SHROUD DESIGN VARIABLES ON THE STATIC THRUST CHARACTERISTICS OF A SMALL-SCALE SHROUDED PROPELLER SUBMERGED IN A WING. Robert T. Taylor. January 1958. 23p. diagrs., photos. (NACA TN 4126)

(1.5.1)
THEORY

A WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS OF 0.96. Albert J. Evans and George Liner. July 1953. 61p. diagrs., photo. (NACA RM L53F01)

MEASUREMENT AND CALCULATION OF BLADE TORSIONAL DEFLECTION OF THREE SUPERSONIC-TYPE PROPELLERS. Arthur E. Allis and Willard E. Foss, Jr. May 1954. 35p. diagrs., photos. (NACA RM L53I16)

INVESTIGATION OF THE NORMAL FORCE ACCOMPANYING THRUST-AXIS INCLINATION OF THE NACA 1.167-(0)(03)-058 AND THE NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.90. Fred A. Demele and William R. Otey. June 1954. 31p. diagrs., photo., tab. (NACA RM A54D22)

EFFECT OF BLADE-SECTION CAMBER ON AERODYNAMIC CHARACTERISTICS OF FULL-SCALE SUPERSONIC-TYPE PROPELLERS AT MACH NUMBERS TO 1.04. Julian D. Maynard, John M. Swihart, and Harry T. Norton, Jr. October 1956. 79p. diagrs., photos., tab. (NACA RM L56E10)

(1.5.2)
DESIGN VARIABLES

MEASUREMENT AND CALCULATION OF BLADE TORSIONAL DEFLECTION OF THREE SUPERSONIC-TYPE PROPELLERS. Arthur E. Allis and Willard E. Foss, Jr. May 1954. 35p. diagrs., photos. (NACA RM L53I16)

AERODYNAMIC CHARACTERISTICS AT HIGH SPEEDS OF RELATED FULL-SCALE PROPELLERS HAVING DIFFERENT BLADE-SECTION CAMBERS. Julian D. Maynard and Leland B. Salters, Jr. 1957. ii, 24p. diagrs., photos., tab. (NACA Rept. 1309. Supersedes RM L8E06)

(1.5.2.1)
BLADE SECTIONS

WAKE SURVEYS IN THE SLIPSTREAM OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS TO 0.96. John M Swihart and Harry T. Norton, Jr. October 1953. 33p. diagrs., photo. (NACA RM L53I09)

MEASUREMENT AND CALCULATION OF BLADE TORSIONAL DEFLECTION OF THREE SUPERSONIC-TYPE PROPELLERS. Arthur E. Allis and Willard E. Foss, Jr. May 1954. 35p. diagrs., photos. (NACA RM L53I16)

INVESTIGATION OF THE NORMAL FORCE ACCOMPANYING THRUST-AXIS INCLINATION OF THE NACA 1.167-(0)(03)-058 AND THE NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.90. Fred A. Demele and William R. Otey. June 1954. 31p. diagrs., photo., tab. (NACA RM A54D22)

THE EFFECT OF TRAILING-EDGE BLUNTNESS ON THE PERFORMANCE OF A SMALL-SCALE SUPERSONIC PROPELLER AT FORWARD MACH NUMBERS TO 0.92. Fred A. Demele and Carl D. Kolbe. January 1956. 66p. diagrs., photo., tabs. (NACA RM A55J12)

FLIGHT MEASUREMENTS OF SECTION EFFICIENCY, THRUST, AND POWER OF A SUPERSONIC-TYPE PROPELLER AT MACH NUMBERS TO 0.9. Jerome B. Hammack and Thomas C. O'Bryan. January 1956. 38p. diagrs., photos., tab. (NACA RM L55I21)

FLIGHT MEASUREMENTS OF THE VIBRATORY BENDING AND TORSION STRESS ON A SUPERSONIC-TYPE PROPELLER FOR FLIGHT MACH NUMBERS UP TO 0.95. Thomas C. O'Bryan. July 1956. 22p. diagrs., photos., tab. (NACA RM L56D20a)

EFFECT OF BLADE-SECTION CAMBER ON AERODYNAMIC CHARACTERISTICS OF FULL-SCALE SUPERSONIC-TYPE PROPELLERS AT MACH NUMBERS TO 1.04. Julian D. Maynard, John M. Swihart, and Harry T. Norton, Jr. October 1956. 79p. diagrs., photos., tab. (NACA RM L56E10)

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FLIGHT INVESTIGATION OF A SUPERSONIC PROPELLER ON A PROPELLER RESEARCH VEHICLE AT MACH NUMBERS TO 1.01. Jerome B. Hammack, Max C. Kurbjun, and Thomas C. O'Bryan. July 1957. 43p. diagrs., photos. (NACA RM L57E20)

EFFECT OF ADVANCE RATIO ON FLIGHT PERFORMANCE OF A MODIFIED SUPERSONIC PROPELLER. Jerome B. Hammack and Thomas C. O'Bryan. September 1958. 20p. diagrs., photos. (NACA TN 4389)

(1.5.2.2) SOLIDITY

AN INVESTIGATION OF SINGLE- AND DUAL-ROTATION PROPELLERS AT POSITIVE AND NEGATIVE THRUST, AND IN COMBINATION WITH AN NACA 1-SERIES D-TYPE COWLING AT MACH NUMBERS UP TO 0.84. Robert M. Reynolds, Robert I. Sammonds, and John H. Walker. 1957. ii, 58p. diagrs., photos., tabs. (NACA Rept. 1336)

(1.5.2.4) BLADE PLAN FORMS

FLIGHT INVESTIGATION OF A SUPERSONIC PROPELLER ON A PROPELLER RESEARCH VEHICLE AT MACH NUMBERS TO 1.01. Jerome B. Hammack, Max C. Kurbjun, and Thomas C. O'Bryan. July 1957. 43p. diagrs., photos. (NACA RM L57E20)

EFFECT OF ADVANCE RATIO ON FLIGHT PERFORMANCE OF A MODIFIED SUPERSONIC PROPELLER. Jerome B. Hammack and Thomas C. O'Bryan. September 1958. 20p. diagrs., photos. (NACA TN 4389)

(1.5.2.5) MACH NUMBER EFFECTS

A WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS OF 0.96. Albert J. Evans and George Liner. July 1953. 61p. diagrs., photo. (NACA RM L53F01)

WAKE SURVEYS IN THE SLIPSTREAM OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS TO 0.96. John M. Swihart and Harry T. Norton, Jr. October 1953. 33p. diagrs., photo. (NACA RM L53I09)

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AERODYNAMIC CHARACTERISTICS AT HIGH SPEEDS OF RELATED FULL-SCALE PROPELLERS HAVING DIFFERENT BLADE-SECTION CAMBERS. Julian D. Maynard and Leland B. Salters, Jr. 1957. ii, 24p. diagrs., photos., tab. (NACA Rept. 1309. Supersedes RM L8E06)

AN INVESTIGATION OF SINGLE- AND DUAL-ROTATION PROPELLERS AT POSITIVE AND NEGATIVE THRUST, AND IN COMBINATION WITH AN NACA 1-SERIES D-TYPE COWLING AT MACH NUMBERS UP TO 0.84. Robert M. Reynolds, Robert I. Sammonds, and John H. Walker. 1957. ii, 58p. diagrs., photos., tabs. (NACA Rept. 1336)

FLIGHT INVESTIGATION OF A SUPERSONIC PROPELLER ON A PROPELLER RESEARCH VEHICLE AT MACH NUMBERS TO 1.01. Jerome B. Hammack, Max C. Kurbjun, and Thomas C. O'Bryan. July 1957. 43p. diagrs., photos. (NACA RM L57E20)

EFFECTS OF BLADE PLAN FORM ON FREE-SPACE OSCILLATING PRESSURES NEAR PROPELLERS AT FLIGHT MACH NUMBERS TO 0.72. Max C. Kurbjun. August 1957. 20p. diagrs., photos., tabs. (NACA TN 4068)

FLIGHT MEASUREMENTS OF THE VIBRATORY BENDING AND TORSIONAL STRESSES ON A MODIFIED SUPERSONIC PROPELLER FOR FORWARD MACH NUMBERS UP TO 0.95. Thomas C. O'Bryan. June 1958. 17p. diagrs., photos. (NACA TN 4342)

EFFECT OF ADVANCE RATIO ON FLIGHT PERFORMANCE OF A MODIFIED SUPERSONIC PROPELLER. Jerome B. Hammack and Thomas C. O'Bryan. September 1958. 20p. diagrs., photos. (NACA TN 4389)

FLIGHT MEASUREMENTS OF THE VIBRATORY STRESSES ON A PROPELLER DESIGNED FOR AN ADVANCE RATIO OF 4.0 AND A MACH NUMBER OF 0.82. Thomas C. O'Bryan. September 1958. 14p. diagrs., photos. (NACA TN 4410)

(1.5.2.7) DUAL ROTATION

THE EFFECT OF AN OPERATING PROPELLER ON THE AERODYNAMIC CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL OF A VERTICAL-RISING AIRPLANE HAVING AN UNSWEPT WING OF ASPECT RATIO 3. Fred B. Sutton and Donald A. Buell. November 1954. 90p. diagrs., photos., tabs. (NACA RM A52E06)

AN INVESTIGATION OF SINGLE- AND DUAL-ROTATION PROPELLERS AT POSITIVE AND NEGATIVE THRUST, AND IN COMBINATION WITH AN NACA 1-SERIES D-TYPE COWLING AT MACH NUMBERS UP TO 0.84. Robert M. Reynolds, Robert I. Sammonds, and John H. Walker. 1957. ii, 58p. diagrs., photos., tabs. (NACA Rept. 1336)

(1.5.2.8) INTERFERENCE OF BODIES

INVESTIGATION OF THE NORMAL FORCE ACCOMPANYING THRUST-AXIS INCLINATION OF THE NACA 1.167-(0)(03)-058 AND THE NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.90. Fred A. Demele and William R. Otey. June 1954. 31p. diagrs., photo., tab. (NACA RM A54D22)

AN INVESTIGATION OF SINGLE- AND DUAL-ROTATION PROPELLERS AT POSITIVE AND NEGATIVE THRUST, AND IN COMBINATION WITH AN NACA 1-SERIES D-TYPE COWLING AT MACH NUMBERS UP TO 0.84. Robert M. Reynolds, Robert I. Sammonds, and John H. Walker. 1957. ii, 58p. diagrs., photos., tabs. (NACA Rept. 1336)

PRELIMINARY INVESTIGATION OF THE CHARACTERISTICS OF A TWO-DIMENSIONAL WING AND PROPELLER WITH THE PROPELLER PLANE OF ROTATION IN THE WING-CHORD PLANE. David H. Hickey. August 1957. 12p. diagrs. (NACA RM A57F03)

LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE MAGNUS EFFECT ON VARIOUS SECTIONS OF A BODY OF REVOLUTION WITH AND WITHOUT A PROPELLER. M. J. Queijo and Herman S. Fletcher. August 1957. 68p. diagrs., photos., tab. (NACA TN 4013)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF FLAT PLATES AND CYLINDERS IN THE SLIPSTREAM OF A HOVERING ROTOR. John W. McKee and Rodger L. Naeseth. April 1958. 42p. diagrs., photos., tab. (NACA TN 4239)

(1.5.2.9) PITCH AND YAW

INVESTIGATION OF THE NORMAL FORCE ACCOMPANYING THRUST-AXIS INCLINATION OF THE NACA 1.167-(0)(03)-058 AND THE NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.90. Fred A. Demele and William R. Otey. June 1954. 31p. diagrs., photo., tab. (NACA RM A54D22)

THE EFFECT OF AN OPERATING PROPELLER ON THE AERODYNAMIC CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL OF A VERTICAL-RISING AIRPLANE HAVING AN UNSWEPT WING OF ASPECT RATIO 3. Fred B. Sutton and Donald A. Buell. November 1954. 90p. diagrs., photos., tabs. (NACA RM A52E06)

A WIND-TUNNEL INVESTIGATION OF THE FIRST-ORDER VIBRATORY STRESSES ON A FULL-SCALE SUPERSONIC-TYPE PROPELLER OPERATING IN AN ASYMMETRIC AIR FLOW. Atwood R. Heath, Jr., and Robert L. O'Neal. November 1954. 28p. diagrs., photo. (NACA RM L54B17a)

LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE MAGNUS EFFECT ON VARIOUS SECTIONS OF A BODY OF REVOLUTION WITH AND WITHOUT A PROPELLER. M. J. Queijo and Herman S. Fletcher. August 1957. 68p. diagrs., photos., tab. (NACA TN 4013)

(1.5.3) DESIGNATED TYPES

WAKE SURVEYS IN THE SLIPSTREAM OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS TO 0.96. John M. Swihart and Harry T. Norton, Jr. October 1953. 33p. diagrs., photo. (NACA RM L53I09)

MEASUREMENT AND CALCULATION OF BLADE TORSIONAL DEFLECTION OF THREE SUPERSONIC-TYPE PROPELLERS. Arthur E. Allis and Willard E. Foss, Jr. May 1954. 35p. diagrs., photos. (NACA RM L53I16)

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FLIGHT MEASUREMENTS OF SECTION EFFICIENCY, THRUST, AND POWER OF A SUPERSONIC-TYPE PROPELLER AT MACH NUMBERS TO 0.9. Jerome B. Hammack and Thomas C. O'Bryan. January 1956. 38p. diagrs., photos., tab. (NACA RM L55I21)

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FLIGHT MEASUREMENTS OF THE VIBRATORY BENDING AND TORSIONAL STRESSES ON A MODIFIED SUPERSONIC PROPELLER FOR FORWARD MACH NUMBERS UP TO 0.95. Thomas C. O'Bryan. June 1958. 17p. diagrs., photos. (NACA TN 4342)

FLIGHT MEASUREMENTS OF THE VIBRATORY STRESSES ON A PROPELLER DESIGNED FOR AN ADVANCE RATIO OF 4.0 AND A MACH NUMBER OF 0.82. Thomas C. O'Bryan. September 1958. 14p. diagrs., photos. (NACA TN 4410)

(1.5.4) SLIPSTREAM

WAKE SURVEYS IN THE SLIPSTREAM OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS TO 0.96. John M. Swihart and Harry T. Norton, Jr. October 1953. 33p. diagrs., photo. (NACA RM L53I09)

FLIGHT MEASUREMENTS OF SECTION EFFICIENCY, THRUST, AND POWER OF A SUPERSONIC-TYPE PROPELLER AT MACH NUMBERS TO 0.9. Jerome B. Hammack and Thomas C. O'Bryan. January 1956. 38p. diagrs., photos., tab. (NACA RM L55I21)

FLIGHT INVESTIGATION OF A SUPERSONIC PROPELLER ON A PROPELLER RESEARCH VEHICLE AT MACH NUMBERS TO 1.01. Jerome B. Hammack, Max C. Kurbjun, and Thomas C. O'Bryan. July 1957. 43p. diagrs., photos. (NACA RM L57E20)

EFFECT OF GROUND PROXIMITY ON THE AERODYNAMIC CHARACTERISTICS OF A FOUR-ENGINE VERTICAL-TAKE-OFF-AND-LANDING TRANSPORT-AIRPLANE MODEL WITH TILTING WING AND PROPELLERS. William A. Newsom, Jr. October 1957. 15p. diagrs., photo., tab. (NACA TN 4124)

INVESTIGATION OF THE EFFECTS OF PROPELLER DIAMETER ON THE ABILITY OF A FLAPPED WING, WITH AND WITHOUT BOUNDARY-LAYER CONTROL, TO DEFLECT A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. December 1957. 47p. diagrs., photos. (NACA TN 4181)

EXPERIMENTAL INVESTIGATION OF THE LATERAL TRIM OF A WING-PROPELLER COMBINATION AT ANGLES OF ATTACK UP TO 90° WITH ALL PROPELLERS TURNING IN THE SAME DIRECTION. William A. Newsom, Jr. January 1958. 27p. diagrs. (NACA TN 4190)

EFFECTIVENESS OF BOUNDARY-LAYER CONTROL, OBTAINED BY BLOWING OVER A PLAIN REAR FLAP IN COMBINATION WITH A FORWARD SLOTTED FLAP, IN DEFLECTING A SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. February 1958. 32p. diagrs., photo. (NACA TN 4200)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF FLAT PLATES AND CYLINDERS IN THE SLIPSTREAM OF A HOVERING ROTOR. John W. McKee and Rodger L. Naeseth. April 1958. 42p. diagrs., photos., tab. (NACA TN 4239)

NORMAL COMPONENT OF INDUCED VELOCITY FOR ENTIRE FIELD OF A UNIFORMLY LOADED LIFTING ROTOR WITH HIGHLY SWEPT WAKE AS DETERMINED BY ELECTROMAGNETIC ANALOG. Walter Castles, Jr., Howard L. Durham, Jr., and Jirair Kevorkian, Georgia Institute of Technology. June 1958. 33p. diagrs., photos., tabs. (NACA TN 4238)

EFFECT OF ADVANCE RATIO ON FLIGHT PERFORMANCE OF A MODIFIED SUPERSONIC PROPELLER. Jerome B. Hammack and Thomas C. O'Bryan. September 1958. 20p. diagrs., photos. (NACA TN 4389)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH AN UNSWEPT, ASPECT-RATIO-10 WING, TWO PROPELLERS, AND AREA-SUCTION FLAPS. James A. Weiberg, Roy N. Griffin, Jr., and George L. Florman. September 1958. 76p. diagrs., photos., tab. (NACA TN 4365)

EFFECTS OF PROPELLER POSITION AND OVERLAP ON THE SLIPSTREAM DEFLECTION CHARACTERISTICS OF A WING-PROPELLER CONFIGURATION EQUIPPED WITH A SLIDING AND FOWLER FLAP. William C. Hayes, Jr., Richard E. Kuhn, and Irving R. Sherman. September 1958. 81p. diagrs., photos. (NACA TN 4404)

(1.5.6) OPERATING CONDITIONS

WAKE SURVEYS IN THE SLIPSTREAM OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS TO 0.96. John M. Swihart and Harry T. Norton, Jr. October 1953. 33p. diagrs., photo. (NACA RM L53I09)

ANALYTICAL AND EXPERIMENTAL STUDY OF TRANSIENT-RESPONSE CHARACTERISTICS OF A TURBOPROP ENGINE. R. T. Craig, S. Nakanishi, and D. B. Wile. October 1955. 50p. diagrs., photo., tabs. (NACA RM E55C23)

EFFECT OF BLADE-SECTION CAMBER ON AERODYNAMIC CHARACTERISTICS OF FULL-SCALE SUPERSONIC-TYPE PROPELLERS AT MACH NUMBERS TO 1.04. Julian D. Maynard, John M. Swihart, and Harry T. Norton, Jr. October 1956. 79p. diagrs., photos., tab. (NACA RM L56E10)

AERODYNAMIC CHARACTERISTICS AT HIGH SPEEDS OF RELATED FULL-SCALE PROPELLERS HAVING DIFFERENT BLADE-SECTION CAMBERS. Julian D. Maynard and Leland B. Salters, Jr. 1957. ii, 24p. diagrs., photos., tab. (NACA Rept. 1309. Supersedes RM L8E06)

FLIGHT INVESTIGATION OF A SUPERSONIC PROPELLER ON A PROPELLER RESEARCH VEHICLE AT MACH NUMBERS TO 1.01. Jerome B. Hammack, Max C. Kurbjun, and Thomas C. O'Bryan. July 1957. 43p. diagrs., photos. (NACA RM L57E20)

PRELIMINARY INVESTIGATION OF THE CHARACTERISTICS OF A TWO-DIMENSIONAL WING AND PROPELLER WITH THE PROPELLER PLANE OF ROTATION IN THE WING-CHORD PLANE. David H. Hickey. August 1957. 12p. diagrs. (NACA RM A57F03)

EFFECT OF ADVANCE RATIO ON FLIGHT PERFORMANCE OF A MODIFIED SUPERSONIC PROPELLER. Jerome B. Hammack and Thomas C. O'Bryan. September 1958. 20p. diagrs., photos. (NACA TN 4389)

(1.5.7) PROPELLER - SPINNER - COWL COMBINATIONS

AN INVESTIGATION OF SINGLE- AND DUAL-ROTATION PROPELLERS AT POSITIVE AND NEGATIVE THRUST, AND IN COMBINATION WITH AN NACA 1-SERIES D-TYPE COWLING AT MACH NUMBERS UP TO 0.84. Robert M. Reynolds, Robert I. Sammonds, and John H. Walker. 1957. ii, 58p. diagrs., photos., tabs. (NACA Rept. 1336)

FLIGHT INVESTIGATION OF A SUPERSONIC PROPELLER ON A PROPELLER RESEARCH VEHICLE AT MACH NUMBERS TO 1.01. Jerome B. Hammack, Max C. Kurbjun, and Thomas C. O'Bryan. July 1957. 43p. diagrs., photos. (NACA RM L57E20)

EFFECT OF ADVANCE RATIO ON FLIGHT PERFORMANCE OF A MODIFIED SUPERSONIC PROPELLER. Jerome B. Hammack and Thomas C. O'Bryan. September 1958. 20p. diagrs., photos. (NACA TN 4389)

(1.6)
Rotating Wings

(1.6.1)
THEORY

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE IN FORWARD FLIGHT. John P. Rabbott, Jr., and Gary B. Churchill. October 1956. 65p. diagrs., photos., tabs. (NACA RM L56I07)

INDUCED VELOCITIES NEAR A LIFTING ROTOR WITH NONUNIFORM DISK LOADING. Harry H. Heyson and S. Katzoff. 1957. iii, 88p. diagrs., photos., tab. (NACA Rept. 1319. Supersedes TN 3690; TN 3691)

ANALYSIS OF HARMONIC FORCES PRODUCED AT HUB BY IMBALANCES IN HELICOPTER ROTOR BLADES. M. Morduchow and A. Muzyka, Polytechnic Institute of Brooklyn. April 1958. 37p. diagrs. (NACA TN 4226)

NORMAL COMPONENT OF INDUCED VELOCITY FOR ENTIRE FIELD OF A UNIFORMLY LOADED LIFTING ROTOR WITH HIGHLY SWEPT WAKE AS DETERMINED BY ELECTROMAGNETIC ANALOG. Walter Castles, Jr., Howard L. Durham, Jr., and Jirair Kevorkian, Georgia Institute of Technology. June 1958. 33p. diagrs., photos., tabs. (NACA TN 4238)

(1.6.2)
EXPERIMENTAL STUDIES

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE IN FORWARD FLIGHT. John P. Rabbott, Jr., and Gary B. Churchill. October 1956. 65p. diagrs., photos., tabs. (NACA RM L56I07)

FLIGHT AND ANALYTICAL METHODS FOR DETERMINING THE COUPLED VIBRATION RESPONSE OF TANDEM HELICOPTERS. John E. Yeates, Jr., George W. Brooks, and John C. Houbolt. 1957. iv, 31p. diagrs., photo., tabs. (NACA Rept. 1326. Supersedes TN 3852: TN 3849)

FLIGHT INVESTIGATION OF EFFECTS OF ATMOSPHERIC TURBULENCE AND MODERATE MANEUVERS ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. February 1958. 34p. diagrs., photo., tab. (NACA TN 4203)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF FLAT PLATES AND CYLINDERS IN THE SLIPSTREAM OF A HOVERING ROTOR. John W. McKee and Rodger L. Naeseth. April 1958. 42p. diagrs., photos., tab. (NACA TN 4239)

FLIGHT INVESTIGATION OF EFFECTS OF RETREATING-BLADE STALL ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. May 1958. 23p. diagrs., photo. (NACA TN 4254)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. September 1958. 68p. diagrs., photo., tabs. (NACA TN 4005. Supersedes RM L53D24)

WIND-TUNNEL TESTS OF A FULL-SCALE HELICOPTER ROTOR WITH SYMMETRICAL AND WITH CAMBERED BLADE SECTIONS AT ADVANCE RATIOS FROM 0.3 TO 0.4. John L. McCloud III and George B. McCullough. September 1958. 33p. diagrs., photos., tab. (NACA TN 4367)

FLIGHT MEASUREMENTS OF THE VIBRATION EXPERIENCED BY A TANDEM HELICOPTER IN TRANSITION, VORTEX-RING STATE, LANDING APPROACH, AND YAWED FLIGHT. John E. Yeates. September 1958. 20p. diagrs. (NACA TN 4409)

(1.6.2.1)
POWER DRIVEN

INDUCED VELOCITIES NEAR A LIFTING ROTOR WITH NONUNIFORM DISK LOADING. Harry H. Heyson and S. Katzoff. 1957. iii, 88p. diagrs., photos., tab. (NACA Rept. 1319. Supersedes TN 3690; TN 3691)

COMPRESSIBILITY EFFECTS ON A HOVERING HELICOPTER ROTOR HAVING AN NACA 0018 ROOT AIRFOIL TAPERING TO AN NACA 0012 TIP AIRFOIL. Robert D. Powell, Jr. September 1957. 25p. diagrs. (NACA RM L57F26)

LOW TIP MACH NUMBER STALL CHARACTERISTICS AND HIGH TIP MACH NUMBER COMPRESSIBILITY EFFECTS ON A HELICOPTER ROTOR HAVING AN NACA 0009 TIP AIRFOIL SECTION. Robert D. Powell, Jr., and Paul J. Carpenter. July 1958. 28p. diagrs. (NACA TN 4355)

EFFECTS OF COMPRESSIBILITY ON ROTOR HOVERING PERFORMANCE AND SYNTHESIZED BLADE-SECTION CHARACTERISTICS DERIVED FROM MEASURED ROTOR PERFORMANCE OF BLADES HAVING NACA 0015 AIRFOIL TIP SECTIONS. James P. Shivers and Paul J. Carpenter. September 1958. 28p. diagrs. (NACA TN 4356)

LIFT AND PROFILE-DRAG CHARACTERISTICS OF AN NACA 0012 AIRFOIL SECTION AS DERIVED FROM MEASURED HELICOPTER-ROTOR HOVERING PERFORMANCE. Paul J. Carpenter. September 1958. 28p. diagrs., photo. (NACA TN 4357)

WIND-TUNNEL TESTS OF A FULL-SCALE HELICOPTER ROTOR WITH SYMMETRICAL AND WITH CAMBERED BLADE SECTIONS AT ADVANCE RATIOS FROM 0.3 TO 0.4. John L. McCloud III and George B. McCullough. September 1958. 33p. diagrs., photos., tab. (NACA TN 4367)

(1.6.2.2)
AUTOROTATING

FULL-SCALE WIND-TUNNEL TESTS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF THE XV-1 CONVERTIPLANE IN THE AUTOROTATING FLIGHT RANGE. David H. Hickey. May 1956. 64p. diagrs., photos., tabs. (NACA RM A55K21a)

(1.7)
Aircraft

(1.7.1)
AIRPLANES

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL WITH LEADING-EDGE CHORD-EXTENSIONS INCORPORATED ON A 40° SWEPTBACK CIRCULAR-ARC WING OF ASPECT RATIO 4 AND TAPER RATIO 0.50. Kenneth W. Goodson and Albert G. Few, Jr. November 1952. 46p. diagrs., photos., tab. (NACA RM L52I18)

STATUS OF SPIN RESEARCH FOR RECENT AIRPLANE DESIGNS. Anshal I. Neihouse, Walter J. Klinar, and Stanley H. Scher. August 1957. ii, 98p. diagrs., photos., tabs. (NACA RM L57F12)

(1.7.1.1)
COMPONENTS IN COMBINATION

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.90 TO 1.95 OF AN ARROW WING IN COMBINATION WITH A SMALL BODY. Warren Gillespie, Jr., and Richard G. Arbic. January 12, 1951. 17p. diagrs., photos., tab. (NACA RM L50K28a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. FORCE CHARACTERISTICS OF THE COMPLETE CONFIGURATION AND ITS VARIOUS COMPONENTS AT MACH NUMBERS OF 1.40 AND 1.59. Norman F. Smith and Jack E. Marte. January 22, 1951. 55p. diagrs., photos., tab. (NACA RM L50K14)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

DIVISION OF LOAD AMONG THE WING, FUSELAGE, AND TAIL OF AIRCRAFT. John P. Mayer and Clarence L. Gillis. May 29, 1951. 14p. diagrs. (NACA RM L51E14a)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG OF 10 WING-BODY CONFIGURATIONS AT MACH NUMBERS FROM 0.8 TO 1.6. John D. Morrow and Robert L. Nelson. January 1953. 53p. diagrs., photo., tabs. (NACA RM L52D18a)

INVESTIGATION OF THE EFFECT OF SPANWISE POSITIONING OF A VERTICALLY SYMMETRIC OGIVE-CYLINDER NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6 WITH AND WITHOUT A FUSELAGE. H. Norman Silvers and Thomas J. King, Jr. October 1953. 62p. diagrs., tabs. (NACA RM L53H17)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING A 45° SWEPT WING OF ASPECT RATIO 6.0. John C. McFall, Jr. January 1954. 34p. diagrs., photos. (NACA RM L53G22a)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A 52.5° DELTA WING AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. March 1954. 31p. diagrs., photos. (NACA RM L54A20)

THE EFFECTS OF WING-MOUNTED EXTERNAL STORES ON THE TRIM, BUFFET, AND DRAG CHARACTERISTICS OF A ROCKET-PROPELLED MODEL HAVING A 45° SWEPTBACK WING. Allen B. Henning. April 1954. 25p. diagrs., photos., tabs. (NACA RM L54B19)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE OBTAINED IN EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Jack Nugent. August 1954. 20p. diagrs., photo., tab. (NACA RM L54F03)

STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.8 TO 1.5 OF A FREE-FLIGHT MODEL HAVING 3-PERCENT-THICK, 60° TRIANGULAR WING AND HORIZONTAL TAIL SURFACES. Rowe Chapman, Jr., and Harvey A. Wallskog. August 1954. 30p. diagrs., photos., tab. (NACA RM L54G23a)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A DIAMOND-PLAN-FORM WING OF ASPECT RATIO 3.08 AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1954. 37p. diagrs., photos. (NACA RM L54G27a)

(1) AERODYNAMICS

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A CANARD CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AND NACA 65A009 AIRFOIL SECTION. A. James Vitale and John C. McFall, Jr. November 1954. 24p. diagrs., photos., tab. (NACA RM L54I01)

LATERAL MOTIONS ENCOUNTERED WITH THE DOUGLAS D-558-II ALL-ROCKET RESEARCH AIRPLANE DURING EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Herman O. Ankenbruck and Chester H. Wolowicz. December 1954. 32p. diagrs., photos., tab. (NACA RM H54I27)

EFFECTS OF SOME EXTERNAL-STORE MOUNTING ARRANGEMENTS AND STORE SHAPES ON THE BUFFET AND DRAG CHARACTERISTICS OF WINGLESS ROCKET-POWERED MODELS AT MACH NUMBERS FROM 0.7 TO 1.4. Homer P. Mason and Allen B. Henning. December 1954. 45p. diagrs., photos., tabs. (NACA RM L54I20a)

JET EFFECTS ON LONGITUDINAL TRIM OF AN AIRPLANE CONFIGURATION MEASURED AT MACH NUMBERS BETWEEN 1.2 AND 1.8. Robert F. Peck. January 1955. 17p. diagrs., photos. (NACA RM L54J29a)

TRANSONIC LONGITUDINAL AERODYNAMIC EFFECTS OF SWEEPING UP THE REAR OF THE FUSELAGE OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING NO HORIZONTAL TAIL. James H. Parks. January 1955. 30p. diagrs., photo. (NACA RM L54K12)

A THEORETICAL INVESTIGATION OF THE EFFECT OF AUXILIARY DAMPING ON THE LONGITUDINAL RESPONSE OF A TRANSONIC BOMBER CONFIGURATION IN FLIGHT THROUGH CONTINUOUS TURBULENCE. T. F. Bridgland, Jr. March 1955. 26p. diagrs., tab. (NACA RM L54K15a)

PRELIMINARY RESULTS FROM FLIGHT MEASUREMENTS IN GRADUAL-TURN MANEUVERS OF THE WING LOADS AND THE DISTRIBUTION OF LOAD AMONG THE COMPONENTS OF A BOEING B-47A AIRPLANE. T. V. Cooney, William H. Andrews, and William A. McGowan. June 1955. 20p. diagrs., photo., tab. (NACA RM L55B02)

LONGITUDINAL CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING A 60° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Robert F. Peck and Lucille C. Coltrane. September 1955. 33p. diagrs., photo., tabs. (NACA RM L55F27)

A FREE-FLIGHT INVESTIGATION OF THE DRAG COEFFICIENTS OF TWO SINGLE-ENGINE SUPERSONIC INTERCEPTOR CONFIGURATIONS FROM MACH NUMBER 0.8 TO 1.90 TO DETERMINE THE EFFECT OF INLET AND ENGINE LOCATION. APPENDIX: SEPARATION CHARACTERISTICS OF A MODEL FROM A LARGE UNDERSLUNG BOOSTER AT MACH NUMBER 1.95. Joseph H. Judd. September 1955. 49p. diagrs., photos., tabs. (NACA RM L55G05a)

FREE-FLIGHT INVESTIGATION TO OBTAIN DRAG-AT-LIFT AND STABILITY DATA FOR A 60° DELTA-WING–BODY CONFIGURATION OVER A MACH NUMBER RANGE OF 1.3 TO 1.6. Clement J. Welsh. October 1955. 23p. diagrs., photo., tab. (NACA RM L55G14)

WIND-TUNNEL MEASUREMENTS OF THE DYNAMIC CROSS DERIVATIVE $C_{l_r} - C_{l_{\dot{\beta}}}$ (ROLLING MOMENT DUE TO YAWING VELOCITY AND TO ACCELERATION IN SIDESLIP) OF THE DOUGLAS D-558-II AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS INCLUDING DESCRIPTION OF THE TECHNIQUE. William B. Boatright. November 1955. 57p. diagrs., photos. (NACA RM L55H16)

LONGITUDINAL STABILITY INVESTIGATION FOR A MACH NUMBER RANGE OF 0.8 TO 1.7 OF AN AIRPLANE CONFIGURATION WITH A 45° SWEPT WING AND A LOW HORIZONTAL TAIL. John C. McFall, Jr. February 1956. 32p. diagrs., photos., tab. (NACA RM L55L09)

RESULTS OF ROCKET MODEL TEST OF AN AIRPLANE CONFIGURATION HAVING AN ARROW WING AND SLENDER FLAT-SIDED FUSELAGE. LIFT, DRAG, LONGITUDINAL STABILITY, LATERAL FORCE, AND JET EFFECTS AT MACH NUMBERS BETWEEN 1.0 AND 2.3. Robert F. Peck. February 1956. 26p. diagrs., photo. (NACA RM L55L29)

FREE-FLIGHT INVESTIGATION OF THE CONTROL EFFECTIVENESS OF A DIFFERENTIALLY DEFLECTED HORIZONTAL TAIL AT MACH NUMBERS FROM 0.8 TO 1.6. Jesse L. Mitchell and A. James Vitale. April 1956. 25p. diagrs., photo., tabs. (NACA RM L56B20)

FULL-SCALE WIND-TUNNEL TESTS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF THE XV-1 CONVERTIPLANE IN THE AUTOROTATING FLIGHT RANGE. David H. Hickey. May 1956. 64p. diagrs., photos., tabs. (NACA RM A55K21a)

FREE-FLIGHT INVESTIGATION OVER A MACH NUMBER RANGE FROM 0.74 TO 1.43 AT LIFT COEFFICIENTS FROM -0.15 TO 0.75 OF AN AIRPLANE-CONFIGURATION MODEL HAVING A 52.5° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1956. 41p. diagrs., photos. (NACA RM L56G09)

AN EXPERIMENTAL STUDY OF THE ZERO-ANGLE-OF-ATTACK TRANSONIC DRAG ASSOCIATED WITH THE VERTICAL POSITION OF A HORIZONTAL TAIL AT ZERO INCIDENCE. Robert R. Howell. October 1956. 21p. diagrs., photos., tab. (NACA RM L56H07)

NONLIFTING WING-BODY COMBINATIONS WITH CERTAIN GEOMETRIC RESTRAINTS HAVING MINIMUM WAVE DRAG AT LOW SUPERSONIC SPEEDS. Harvard Lomax. 1957. ii, 11p. diagrs. (NACA Rept. 1297. Supersedes TN 3667)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. 1957. ii, 43p. diagrs., photo., tabs. (NACA Rept. 1327. Supersedes TN 3738)

DETERMINATION OF LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS FROM FREE-FLIGHT MODEL TESTS WITH RESULTS AT TRANSONIC SPEEDS FOR THREE AIRPLANE CONFIGURATIONS. Clarence L. Gillis and Jesse L. Mitchell. 1957. ii, 28p. diagrs., photos., tabs. (NACA Rept. 1337)

LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE MAGNUS EFFECT ON VARIOUS SECTIONS OF A BODY OF REVOLUTION WITH AND WITHOUT A PROPELLER. M. J. Queijo and Herman S. Fletcher. August 1957. 68p. diagrs., photos., tab. (NACA TN 4013)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 45° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. David F. Thomas, Jr., and Walter D. Wolhart. September 1957. 30p. diagrs., photos., tabs. (NACA TN 4077)

ACCELERATION IN FIGHTER-AIRPLANE CRASHES. Loren W. Acker, Dugald O. Black, and Jacob C. Moser. November 1957. 78p. diagrs., photos. (NACA RM E57G11)

A METHOD FOR THE CALCULATION OF THE LATERAL RESPONSE OF AIRPLANES TO RANDOM TURBULENCE. John M. Eggleston and William H. Phillips. February 1958. 34p. diagrs., tab. (NACA TN 4196)

A METHOD FOR THE CALCULATION OF WAVE DRAG ON SUPERSONIC-EDGED WINGS AND BIPLANES. Harvard Lomax and Loma Sluder. March 1958. 24p. (NACA TN 4232)

SPECIAL BODIES ADDED ON A WING TO REDUCE SHOCK-INDUCED BOUNDARY-LAYER SEPARATION AT HIGH SUBSONIC SPEEDS. Richard T. Whitcomb. June 1958. 48p. diagrs., photos. (NACA TN 4293)

SUPERSONIC WAVE INTERFERENCE AFFECTING STABILITY. Eugene S. Love. September 1958. 19p. diagrs., photos. (NACA TN 4358. Supersedes RM L55L14a)

FREE-FLIGHT INVESTIGATION TO DETERMINE THE DRAG OF FLAT- AND VEE-WINDSHIELD CANOPIES ON A PARABOLIC FUSELAGE WITH AND WITHOUT TRANSONIC INDENTATION BETWEEN MACH NUMBERS OF 0.75 AND 1.35. Walter L. Kouyoumjian and Sherwood Hoffman. September 1958. 34p. diagrs., photos., tabs. (NACA TN 4405)

(1.7.1.1.1)
Wing-Fuselage

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.59. Morton Cooper and M. Leroy Spearman. May 23, 1950. 52p. diagrs., photos., tabs. (NACA RM L50C24)

A COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF FOUR WING-FUSELAGE CONFIGURATIONS AS DETERMINED FROM DIFFERENT TEST TECHNIQUES Charles J. Donlan, Boyd C. Myers, II, and Axel T Mattson. October 4, 1950. 66p. diagrs., photos., tabs. (NACA RM L50H02)

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.90 TO 1.95 OF AN ARROW WING IN COMBINATION WITH A SMALL BODY. Warren Gillespie, Jr., and Richard G. Arbic. January 12, 1951. 17p. diagrs., photos., tab. (NACA RM L50K28a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTION AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.40. Norman F. Smith, Julian H. Kainer, and Robert A. Webster. April 20, 1951. 48p. diagrs., photos., tabs. (NACA RM L51C06)

BASIC PRESSURE MEASUREMENTS ON A FUSELAGE AND A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT TRANSONIC SPEEDS IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Donald L. Loving and Claude V. Williams. September 1951. 59p. diagrs., photos. (NACA RM L51F05)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF THICKNESS RATIO AND OF THICKENED ROOT SECTIONS ON THE AERODYNAMIC CHARACTERISTICS OF WINGS WITH 47° SWEEPBACK, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat, Daniel E. Harrison, and Domenic A. Coppolino. October 1951. 38p. diagrs., photo., tab. (NACA RM L51I04a)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 1.60. M. Leroy Spearman and John H. Hilton, Jr. January 1952. 31p. diagrs., tabs. (NACA RM L51K15a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 1.60. Ross B. Robinson and Cornelius Driver. January 1952. 27p. diagrs., photos., tabs. (NACA RM L51K16a)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

AERODYNAMIC LOADING CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A WING OF 45° SWEEPBACK MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Donald L. Loving and Claude V. Williams. May 1952. 58p. diagrs., photos., tab. (NACA RM L52B27)

(1) AERODYNAMICS

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF THREE 4-PERCENT-THICK WINGS OF SWEEPBACK ANGLES 10.8°, 35°, AND 47°, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN COMBINATION WITH A BODY. Ralph P. Bielat. July 1952. 33p. diagrs., photos., tab. (NACA RM L52B08)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 2.01. Ross B. Robinson. July 1952. 27p. diagrs., photo., tabs. (NACA RM L52E09)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 2.01. Clyde V. Hamilton. August 1952. 37p. diagrs., tabs. (NACA RM L52E23)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF RECTANGULAR WING AND BODY COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. August 1952. 74p. diagrs., tabs. (NACA RM L52E26)

PRELIMINARY INVESTIGATION OF THE LOW-AMPLITUDE DAMPING IN PITCH OF TAILLESS DELTA- AND SWEPT-WING CONFIGURATIONS AT MACH NUMBERS FROM 0.7 TO 1.35. Charles T. D'Aiutolo and Robert N. Parker. August 1952. 27p. diagrs., photos., tab. (NACA RM L52G09)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK-WING-FUSELAGE COMBINATION MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 27p. diagrs., photos. (NACA RM L52G23)

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG OF 10 WING-BODY CONFIGURATIONS AT MACH NUMBERS FROM 0.8 TO 1.6. John D. Morrow and Robert L. Nelson. January 1953. 53p. diagrs., photo., tabs. (NACA RM L52D18a)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON SUBSONIC AND TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE MODELS HAVING 45° SWEPTBACK WINGS OF ASPECT RATIO 4. Kenneth W. Goodson and Albert G. Few, Jr. January 1953. 31p. diagrs., photos., tab. (NACA RM L52K21)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION, AS SPECIFIED BY THE TRANSONIC DRAG-RISE RULE, ON THE AERODYNAMIC CHARACTERISTICS AND FLOW PHENOMENA OF AN UNSWEPT-WING-BODY COMBINATION. Claude V. Williams. January 1953. 38p. diagrs., photos., tabs. (NACA RM L52L23)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF ASPECT RATIO, SPANWISE VARIATIONS IN SECTION THICKNESS RATIO, AND A BODY INDENTATION ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Melvin M. Carmel January 1953. 44p. diagrs., tab. (NACA RM L52L26b)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION, AS SPECIFIED BY THE TRANSONIC DRAG-RISE RULE, ON THE AERODYNAMIC CHARACTERISTICS AND FLOW PHENOMENA OF A 45° SWEPTBACK-WING-BODY COMBINATION. Harold L. Robinson. February 1953. 33p. diagrs., photos., tab. (NACA RM L52L12)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

WIND-TUNNEL INVESTIGATION OF THE VORTEX WAKE AND DOWNWASH FIELD BEHIND TRIANGULAR WINGS AND WING-BODY COMBINATIONS AT SUPERSONIC SPEEDS. J. Richard Spahr and Robert R. Dickey. June 1953. 92p. diagrs., photos., tabs. (NACA RM A53D10)

THE EFFECT OF NACELLE COMBINATIONS AND SIZE ON THE ZERO-LIFT DRAG OF A 45° SWEPTBACK WING AND BODY CONFIGURATION AS DETERMINED BY FREE-FLIGHT TESTS AT MACH NUMBERS BETWEEN 0.8 AND 1.3. Sherwood Hoffman and William B. Pepper, Jr. June 1953. 22p. diagrs., photos., tabs. (NACA RM L53E25)

THE INFLUENCE OF A CHANGE IN BODY SHAPE ON THE EFFECTS OF TWIST AND CAMBER AS DETERMINED BY A TRANSONIC WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. August 1953. 23p. diagrs., tab. (NACA RM L53B03)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION ON THE AERODYNAMIC CHARACTERISTICS OF AN APPROXIMATE-DELTA-WING-BODY CONFIGURATION, AND A COMPARISON WITH A WING OF REVERSED PLAN FORM. Claude V. Williams. August 1953. 36p. diagrs., photos., tabs. (NACA RM L53F05a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF MODIFICATIONS TO AN INDENTED BODY IN COMBINATION WITH A 45° SWEPTBACK WING. Donald L. Loving. September 1953. 29p. diagrs., photos., tabs. (NACA RM L53F02)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

TRANSONIC FLIGHT TESTS TO DETERMINE ZERO-LIFT DRAG AND PRESSURE RECOVERY OF NACELLES LOCATED AT THE WING ROOT ON A 45° SWEPTBACK WING AND BODY CONFIGURATION. Sherwood Hoffman and Austin L. Wolff. September 1953. 31p. diagrs., photos., tabs. (NACA RM L53H20)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

RELATIONSHIP OF FLOW OVER A 45° SWEPTBACK WING WITH AND WITHOUT LEADING-EDGE CHORD-EXTENSIONS TO LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., and James H. Henderson. October 1953. 47p. diagrs., photos. (NACA RM L53H18b)

DEVELOPMENT OF A SUPERSONIC AREA RULE AND AN APPLICATION TO THE DESIGN OF A WING-BODY COMBINATION HAVING HIGH LIFT-TO-DRAG RATIOS. Richard T. Whitcomb and Thomas L. Fischetti. October 1953. 21p. diagrs., tabs. (NACA RM L53H31a)

THE EFFECT OF NOSE RADIUS AND SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A FUSELAGE AND A WING-FUSELAGE COMBINATION AT ANGLES OF ATTACK. John P. Gapcynski and A. Warner Robins. October 1953. 23p. diagrs. (NACA RM L53I23a)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

AN INVESTIGATION OF THE TRANSONIC AREA RULE BY FLIGHT TESTS OF A SWEPTBACK WING ON A CYLINDRICAL BODY WITH AND WITHOUT BODY INDENTATION BETWEEN MACH NUMBERS 0.9 AND 1.8. Sherwood Hoffman. December 1953. 24p. diagrs., photos., tabs. (NACA RM L53J20a)

FLIGHT INVESTIGATION OF ENGINE NACELLES AND WING VERTICAL POSITION ON THE DRAG OF A DELTA-WING AIRPLANE CONFIGURATION FROM MACH NUMBER 0.8 TO 2.0. Joseph H. Judd. March 1954. 39p. diagrs., photos., tabs. (NACA RM L53L21)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION FOR BOATTAIL AND CYLINDRICAL AFTERBODY SHAPES ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT-WING—BODY COMBINATION. Thomas C. Kelly. March 1954. 22p. diagrs., tab. (NACA RM L54A08)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO, BODY INDENTATION, FIXED TRANSITION, AND AFTERBODY SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY COMBINATION. Francis G. Morgan, Jr., and Melvin M. Carmel. March 1954. 37p. diagrs., tab. (NACA RM L54A15)

THE EFFECT OF NACELLE LOCATION ON THE ZERO-LIFT DRAGS OF 45° SWEPTBACK WING-BODY CONFIGURATIONS HAVING BOATTAIL AND CYLINDRICAL AFTERBODIES AS DETERMINED BY FLIGHT TESTS AT TRANSONIC SPEEDS. Sherwood Hoffman and Austin L. Wolff. March 1954. 29p. diagrs., photos., tabs. (NACA RM L54B02)

THE EFFECT OF A CHANGE IN BODY SHAPE ON THE LOADING OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. April 1954. 67p. diagrs., photo. (NACA RM L54B09)

EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD DISTRIBUTION OVER A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.60 TO 1.03. Joseph M. Hallissy, Jr., F. E. West, Jr., and George Liner. May 1954. 162p. diagrs., tabs. (NACA RM L54C17a)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF TAILLESS DELTA-WING—BODY COMBINATIONS AT MACH NUMBERS FROM 0.80 TO 1.35 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. June 1954. 34p. diagrs., photos., tab. (NACA RM L54D29)

THE EFFECT OF CANOPY LOCATION ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Harold L. Robinson. June 1954. 14p. diagrs., photo. (NACA RM L54E11)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

AN EXPERIMENTAL INVESTIGATION OF REDUCTION IN TRANSONIC DRAG RISE AT ZERO LIFT BY THE ADDITION OF VOLUME TO THE FUSELAGE OF A WING-BODY-TAIL CONFIGURATION AND A COMPARISON WITH THEORY. George H. Holdaway August 1954. 35p. diagrs., photos., tabs. (NACA RM A54F22)

INVESTIGATION OF THE EFFECT OF INDENTATION ON AN M-PLAN-FORM-WING—BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. August 1954. 24p. diagrs., photos., tab. (NACA RM L54F14)

AN INVESTIGATION OF THE EFFECTS OF A GEOMETRIC TWIST ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Claude V. Williams. October 1954. 87p. diagrs., photos., tabs. (NACA RM L54H18)

A FLIGHT INVESTIGATION OF THE TRANSONIC AREA RULE FOR A 52.5° SWEPTBACK WING-BODY CONFIGURATION AT MACH NUMBERS BETWEEN 0.8 AND 1.6. Sherwood Hoffman. November 1954. 25p. diagrs., photos., tab. (NACA RM L54H13a)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF FOUR TAILLESS SWEPT WING-BODY COMBINATIONS AT MACH NUMBERS FROM 0.85 TO 1.30 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. November 1954. 34p. diagrs., photos., tab. (NACA RM L54I10)

EFFECT OF TAPER RATIO ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 WITH 53.1° SWEEPBACK OF LEADING EDGE AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetsel. January 1955. 25p. diagrs., photo., tabs. (NACA RM A54J20)

LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-BODY-TAIL COMBINATION HAVING A WING WITH 45° OF SWEEPBACK AND A TAIL IN VARIOUS VERTICAL POSITIONS. Jack D. Stephenson, Angelo Bandettini, and Ralph Selan. January 1955. 64p. diagrs., photos., tabs. (NACA RM A54K09)

EFFECTS OF BODY INDENTATION ON THE DRAG CHARACTERISTICS OF A DELTA-WING—BODY COMBINATION AT TRANSONIC SPEEDS. Dewey E. Wornom and Robert S. Osborne. January 1955. 32p. diagrs., photos., tabs. (NACA RM L54K12a)

(1) AERODYNAMICS

EFFECTS OF INCREASING REYNOLDS NUMBER FROM 2×10^6 TO 6×10^6 ON THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A 45° SWEPT WING WITH 6° LEADING-EDGE DROOP James W. Schmeer and J. Lawrence Cooper. February 1955. 22p. diagrs., photo. (NACA RM L54L10)

THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF SEVERAL WING-FUSELAGE-TAIL COMBINATIONS HAVING SWEPT-BACK WINGS WITH NACA FOUR-DIGIT THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. March 1955. 128p. diagrs., photos., tab. (NACA RM A54L08)

THE ROLLING MOMENT DUE TO SIDESLIP OF SWEPT WINGS AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and William C. Sleeman, Jr. March 1955. 81p. diagrs., photos., tabs. (NACA RM L54L01)

AN EXPERIMENTAL INVESTIGATION OF TWO METHODS FOR REDUCING TRANSONIC DRAG OF SWEPT-WING AND BODY COMBINATIONS. John B. McDevitt. April 1955. 27p. diagrs., photos. (NACA RM A55B21)

EXPLORATORY INVESTIGATION OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE IDENTICAL TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. April 1955. 25p. diagrs., photos. (NACA RM A55C28)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO DELTA WINGS AND ONE CLIPPED-TIP DELTA WING OF 4 PERCENT THICKNESS ON A SLENDER BODY. William E. Palmer and Dale L. Burrows. April 1955. 31p. diagrs., photo. (NACA RM L55A07a)

FLUTTER EXPERIENCES WITH THIN POINTED-TIP WINGS DURING FLIGHT TESTS OF ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.95. Harvey A. Wallskog. April 1955. 32p. diagrs., photos., tabs. (NACA RM L55A14)

LIFT, DRAG, AND LONGITUDINAL STABILITY AT MACH NUMBERS FROM 0.8 TO 2.1 OF A ROCKET-POWERED MODEL HAVING A TAPERED UNSWEPT WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. April 1955. 29p. diagrs., photo., tabs. (NACA RM L55B10)

COMPARISON OF THE STATIC STABILITY OF A 68.7° DELTA-WING MODEL WITH DIHEDRAL AND A TWISTED AND CAMBERED WING MODEL OF THE SAME PLAN FORM. John W. Paulson. April 1955. 18p. diagrs., tab. (NACA RM L55B11)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.62. Donald E. Coletti. May 1955. 49p. diagrs., photo., tabs. (NACA RM L55B25)

INVESTIGATION OF THE EFFECTS OF AN AIRFOIL SECTION MODIFICATION ON THE AERODYNAMIC CHARACTERISTICS AT SUBSONIC AND SUPERSONIC SPEEDS OF A THIN SWEPT WING OF ASPECT RATIO 3 IN COMBINATION WITH A BODY. David Graham and William T. Evans. June 1955. 46p. diagrs., tabs. (NACA RM A55D11)

INVESTIGATION OF THE EFFECTS OF BODY INDENTATION AND OF WING-PLAN-FORM MODIFICATION ON THE LONGITUDINAL CHARACTERISTICS OF A 60° SWEPT-WING–BODY COMBINATION AT MACH NUMBERS OF 1.41, 1.61, AND 2.01. John R. Sevier, Jr. July 1955. 37p. diagrs., tab. (NACA RM L55E17)

AN EXPERIMENTAL INVESTIGATION AT A MACH NUMBER OF 2.01 OF THE EFFECTS OF BODY CROSS-SECTION SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF BODIES AND WING-BODY COMBINATIONS. Harry W. Carlson and John P. Gapcynski. July 1955. 29p. diagrs., tabs. (NACA RM L55E23)

ADDITIONAL COMPARISONS BETWEEN COMPUTED AND MEASURED TRANSONIC DRAG-RISE COEFFICIENTS AT ZERO LIFT FOR WING-BODY-TAIL CONFIGURATIONS. George H. Holdaway. August 1955. 43p. diagrs., photo., tabs. (NACA RM A55F06)

SUMMARY AND ANALYSIS OF HORIZONTAL-TAIL CONTRIBUTION TO LONGITUDINAL STABILITY OF SWEPT-WING AIRPLANES AT LOW SPEEDS. Robert H. Neely and Roland F. Griner. August 1955. ii, 133p. diagrs., tabs. (NACA RM L55E23a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL CHARACTERISTICS OF A 3-PERCENT-THICK, ASPECT-RATIO-3, DELTA WING CAMBERED AND TWISTED FOR HIGH LIFT-DRAG RATIOS. Dale L. Burrows and Warren A. Tucker. August 1955. 38p. diagrs., photos., tab. (NACA RM L55F02a)

A FREE-FLIGHT INVESTIGATION OF THE DRAG COEFFICIENTS OF TWO SINGLE-ENGINE SUPERSONIC INTERCEPTOR CONFIGURATIONS FROM MACH NUMBER 0.8 TO 1.90 TO DETERMINE THE EFFECT OF INLET AND ENGINE LOCATION. APPENDIX: SEPARATION CHARACTERISTICS OF A MODEL FROM A LARGE UNDERSLUNG BOOSTER AT MACH NUMBER 1.95. Joseph H. Judd. September 1955. 49p. diagrs., photos., tabs. (NACA RM L55G05a)

EFFECT OF LEADING-EDGE SWEEPBACK ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 AND TAPER RATIO 0.4 AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. November 1955. 22p. diagrs., tabs. (NACA RM A55H04a)

THE EFFECT OF LEADING-EDGE DROOP UPON THE PRESSURE DISTRIBUTION AND AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPT-BACK WING AT TRANSONIC SPEEDS. James W. Schmeer. November 1955. 42p. diagrs., photos. (NACA RM L55I16)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR-WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.94. Donald E. Coletti. December 1955. 52p. diagrs., photo., tabs. (NACA RM L55I14)

THE EFFECT OF LEADING-EDGE EXTENSIONS OF THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-FUSELAGE-TAIL COMBINATION HAVING A 40° SWEPTBACK WING WITH NACA 64A THICKNESS DISTRIBUTION. Fred B. Sutton. January 1956. 52p. diagrs., photos., tabs. (NACA RM A55I29)

EXPERIMENTAL STUDY OF A METHOD OF DESIGNING THE SWEPTBACK-WING—FUSELAGE JUNCTURE TO REDUCE THE DRAG AT MODERATE SUPERSONIC SPEEDS. Robert R. Howell. January 1956. 20p. diagrs., photos., tabs. (NACA RM L55H05a)

INFLUENCE OF THE BODY FLOW FIELD ON THE ZERO-LIFT WAVE DRAG OF WING-BODY COMBINATIONS MODIFIED IN ACCORDANCE WITH THE TRANSONIC AREA RULE. William A. Page. February 1956. 26p. diagrs. (NACA RM A55K10)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING DIHEDRAL ANGLE AND FIN LENGTH ON THE STATIC STABILITY CHARACTERISTICS OF A MODEL HAVING AN 82° DELTA WING. Kenneth P. Spreemann. April 1956. 30p. diagrs. (NACA RM L55L30a)

DATA FROM LARGE-SCALE LOW-SPEED TESTS OF AIRPLANE CONFIGURATIONS WITH A THIN 45° SWEPT WING INCORPORATING SEVERAL LEADING-EDGE CONTOUR MODIFICATIONS. William T. Evans. May 1956. 110p. diagrs., photo., tabs. (NACA RM A56B17)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

EFFECT OF WING SIZE AND AMOUNT OF INDENTATION ON APPLICABILITY OF TRANSONIC AREA RULE TO SWEPT-WING CONFIGURATIONS. James Rudyard Hall. July 1956. 33p. diagrs., photos., tabs. (NACA RM L55F03)

TRANSONIC WIND-TUNNEL INVESTIGATION OF STATIC LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO WING-BODY COMBINATIONS WITH CLIPPED-TIP AND FULL DELTA WINGS OF ASPECT RATIO 1.73. Dale L. Burrows. September 1956. 26p. diagrs. (NACA RM L56F21)

EFFECT OF A FUSELAGE ON THE LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. September 1956. 31p. diagrs., tabs. (NACA RM L56G02)

COMBINED EFFECTS OF WING TAPER RATIO AND LOW HORIZONTAL-TAIL POSITION ON LONGITUDINAL STABILITY OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Stanley H. Spooner. October 1956. 28p. diagrs., tab. (NACA RM L56H24)

SOME CONSIDERATIONS OF THE INFLUENCE OF BODY CROSS-SECTIONAL SHAPE ON THE LIFTING EFFICIENCY OF WING-BODY COMBINATIONS AT SUPERSONIC SPEEDS. E. B. Klunker and Keith C. Harder. October 1956. 20p. diagrs. (NACA RM L56H30)

LIFT AND CENTER OF PRESSURE OF WING-BODY-TAIL COMBINATIONS AT SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen, and George E. Kaattari. 1957. ii, 70p. diagrs., tabs. (NACA Rept. 1307)

ON SLENDER-BODY THEORY AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. 1957. ii, 6p. (NACA Rept. 1315. Supersedes TN 3815)

MINIMUM WAVE DRAG FOR ARBITRARY ARRANGEMENTS OF WINGS AND BODIES. Robert T. Jones. 1957. ii, 6p. diagrs., photo. (NACA Rept. 1335. Supersedes TN 3530)

FLIGHT INVESTIGATION AND THEORETICAL CALCULATIONS OF THE FUSELAGE DEFORMATIONS OF A SWEPT-WING BOMBER DURING PUSH-PULL MANEUVERS. Alton P. Mayo. March 1957. 51p. diagrs., photo., tabs. (NACA RM L56L05)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1957. 48p. diagrs., photos., tabs. (NACA TN 4044. Supersedes RM A55E04)

ELLIPTIC CONES ALONE AND WITH WINGS AT SUPERSONIC SPEEDS. Leland H. Jorgensen. October 1957. 55p. diagrs., photos. (NACA TN 4045)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. October 1957. 25p. diagrs., photos. (NACA TN 4174. Supersedes RM L53B25a)

CONTRIBUTION OF THE WING PANELS TO THE FORCES AND MOMENTS OF SUPERSONIC WING-BODY COMBINATIONS AT COMBINED ANGLES. J. Richard Spahr. January 1958. 62p. diagrs., photo., tabs. (NACA TN 4146)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. January 1958. 47p. diagrs., tab. (NACA TN 4185. Supersedes RM L54C26)

A NUMERICAL METHOD FOR EVALUATING WAVE DRAG. Maurice S. Cahn and Walter B. Olstad, June 1958. 13p. diagrs., tabs. (NACA TN 4258)

A FUSELAGE ADDITION TO INCREASE DRAG-RISE MACH NUMBER OF SUBSONIC AIRPLANES AT LIFTING CONDITIONS. Richard T. Whitcomb. June 1958. 38p. diagrs., photos., tab. (NACA TN 4290)

A BODY MODIFICATION TO REDUCE DRAG DUE TO WEDGE ANGLE OF WING WITH UNSWEPT TRAILING EDGE. William C. Pitts and Jack N. Nielsen. July 1958. 13p. (NACA TN 4277)

WIND-TUNNEL INVESTIGATION OF THE HIGH-SUBSONIC STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF SEVERAL WING-BODY CONFIGURATIONS DESIGNED FOR HIGH LIFT-DRAG RATIOS AT A MACH NUMBER OF 1.4. Paul G. Fournier. July 1958. 42p. diagrs., photo., tab. (NACA TN 4340)

IDEALIZED WINGS AND WING-BODIES AT A MACH NUMBER OF 3. Elliott D. Katzen. July 1958. 11p. diagrs. (NACA TN 4361)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. August 1958. 35p. diagrs., photo. (NACA TN 4016. Supersedes RM L55E20b)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. September 1958. 62p. diagrs., photos., tabs. (NACA TN 4020. Supersedes RM L51E11)

(1.7.1.1.2) Wing-Nacelle

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECT AT M = 1.60 OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF TWO WING-BODY COMBINATIONS WITH 47° SWEPTBACK WINGS. Lowell E. Hasel and John R. Sevier, Jr. January 1952. 31p. diagrs., photos., tabs. (NACA RM L51K14a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 1.60. M. Leroy Spearman and John H. Hilton, Jr. January 1952. 31p. diagrs., tabs. (NACA RM L51K15a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECT AT M = 2.01 OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF TWO WING-BODY COMBINATIONS WITH 47° SWEPTBACK WINGS. Cornelius Driver. July 1952. 27p. diagrs., photos., tab. (NACA RM L52F05)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 2.01. Clyde V. Hamilton. August 1952. 37p. diagrs., tabs. (NACA RM L52E23)

EFFECTS OF SYSTEMATICALLY VARYING THE SPANWISE AND VERTICAL LOCATION OF AN EXTERNAL STORE ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT TAPERED WING OF ASPECT RATIO 4 AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. August 1952. 34p. diagrs. (NACA RM L52F13)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS OF TWO 47° SWEPTBACK WING-BODY CONFIGURATIONS. Ralph P. Bielat and Daniel E. Harrison. September 1952. 87p. diagrs., photos., tab. (NACA RM L52G02)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF BODIES MOUNTED FROM THE WING OF AN UNSWEPT-WING-FUSELAGE MODEL, INCLUDING MEASUREMENTS OF BODY LOADS. H. Norman Silvers and Thomas J. King, Jr. November 1952. 37p. diagrs., photos., tabs. (NACA RM L52J08)

EFFECTS OF THE SPANWISE, CHORDWISE, AND VERTICAL LOCATION OF AN EXTERNAL STORE ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED WING OF ASPECT RATIO 4 AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. January 1953. 31p. diagrs., photo. (NACA RM L52J27)

EFFECTS OF SIZE OF EXTERNAL STORES ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT AND A 45° SWEPTBACK WING OF ASPECT RATIO 4 AND A 60° DELTA WING AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. January 1953. 55p. diagrs., photos., tab. (NACA RM L52K20a)

THE EFFECT OF NACELLE COMBINATIONS AND SIZE ON THE ZERO-LIFT DRAG OF A 45° SWEPTBACK WING AND BODY CONFIGURATION AS DETERMINED BY FREE-FLIGHT TESTS AT MACH NUMBERS BETWEEN 0.8 AND 1.3. Sherwood Hoffman and William B. Pepper, Jr. June 1953. 22p. diagrs., photos., tabs. (NACA RM L53E25)

TRANSONIC FLIGHT TESTS TO DETERMINE ZERO-LIFT DRAG AND PRESSURE RECOVERY OF NACELLES LOCATED AT THE WING ROOT ON A 45° SWEPTBACK WING AND BODY CONFIGURATION. Sherwood Hoffman and Austin L. Wolff. September 1953. 31p. diagrs., photos., tabs. (NACA RM L53H20)

FLIGHT INVESTIGATION OF ENGINE NACELLES AND WING VERTICAL POSITION ON THE DRAG OF A DELTA-WING AIRPLANE CONFIGURATION FROM MACH NUMBER 0.8 TO 2.0. Joseph H. Judd. March 1954. 39p. diagrs., photos., tabs. (NACA RM L53L21)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF WING-MOUNTED EXTERNAL STORES ON THE LOADING AND AERODYNAMIC CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING COMBINED WITH A FUSELAGE. H. Norman Silvers, Thomas J. King, Jr., and William J. Alford, Jr. March 1954. 36p. diagrs., tabs. (NACA RM L54A21)

THE EFFECT OF NACELLE LOCATION ON THE ZERO-LIFT DRAGS OF 45° SWEPTBACK WING-BODY CONFIGURATIONS HAVING BOATTAIL AND CYLINDRICAL AFTERBODIES AS DETERMINED BY FLIGHT TESTS AT TRANSONIC SPEEDS. Sherwood Hoffman and Austin L. Wolff. March 1954. 29p. diagrs., photos., tabs. (NACA RM L54B02)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF FINNED AND UNFINNED BODIES MOUNTED AT VARIOUS LOCATIONS FROM THE WINGS OF UNSWEPT, AND SWEPT-WING–FUSELAGE MODELS, INCLUDING MEASUREMENTS OF BODY LOADS. William J. Alford, Jr., and H. Norman Silvers. April 1954. 93p. diagrs., photos., tabs. (NACA RM L54B18)

AERODYNAMIC LOADS ON AN EXTERNAL STORE ADJACENT TO A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.70 TO 1.96, INCLUDING AN EVALUATION OF TECHNIQUES USED. Lawrence D. Guy and William M. Hadaway. November 1955. 109p. diagrs., photo., tab. (NACA RM L55H12)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF SIDESLIP ON THE AERODYNAMIC LOADS ON FINNED AND UNFINNED BODIES MOUNTED FROM THE WING OF A SWEPT-WING–FUSELAGE MODEL. Thomas J. King, Jr. April 1956. 50p. diagrs., tabs. (NACA RM L56A24)

THEORETICAL CALCULATIONS OF SUPERSONIC WAVE DRAG AT ZERO LIFT FOR A PARTICULAR STORE ARRANGEMENT. Kenneth Margolis, Frank S. Malvestuto, Jr., and Peter J. Maxie, Jr. January 1958. 37p. diagrs., tab. (NACA TN 4120)

(1.7.1.1.3)
Tail-Wing and Fuselage

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Joseph Weil, Paul Comisarow, and Kenneth W. Goodson. October 17, 1947. 84p. diagrs., photos., tab. (NACA RM L7G28)

SUPERSONIC-TUNNEL TESTS OF TWO SUPERSONIC AIRPLANE MODEL CONFIGURATIONS. Macon C. Ellis, Jr., Lowell E. Hasel, and Carl E. Grigsby. December 31, 1947. 49p. diagrs., photos., tab. (NACA RM L7J15)

FLIGHT TESTS AT TRANSONIC AND SUPERSONIC SPEEDS OF AN AIRPLANE-LIKE CONFIGURATION WITH THIN STRAIGHT SHARP-EDGE WINGS AND TAIL SURFACES. Clarence L. Gillis and Jesse L. Mitchell. January 5, 1949. 37p. diagrs., photos., tab. (NACA RM L8K04a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.59. M. Leroy Spearman and John H. Hilton, Jr. June 29, 1950. 22p. diagrs., photo., tab. (NACA RM L50E12)

PRELIMINARY RESULTS OF THE FLIGHT INVESTIGATION BETWEEN MACH NUMBERS OF 0.80 AND 1.36 OF A ROCKET-POWERED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Homer P. Mason. October 31, 1950. 30p. diagrs., photos., tab. (NACA RM L50H29a)

DETERMINATION OF LONGITUDINAL STABILITY OF THE BELL X-1 AIRPLANE FROM TRANSIENT RESPONSES AT MACH NUMBERS UP TO 1.12 AT LIFT COEFFICIENTS OF 0.3 AND 0.6. Ellwyn E. Angle and Euclid C. Holleman. November 7, 1950. 22p diagrs. (NACA RM L50I06a)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

ANALYSIS OF LONGITUDINAL STABILITY AND TRIM OF THE BELL X-1 AIRPLANE AT A LIFT COEFFICIENT OF 0.3 TO MACH NUMBERS NEAR 1.05. Hubert M. Drake, John R. Carden, and Harry P. Clagett. October 1951. 30p. diagrs., photo., tab. (NACA RM L51H01)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. ESTIMATED DOWNWASH ANGLES DERIVED FROM PRESSURE MEASUREMENTS ON THE TAIL AT MACH NUMBERS OF 1.40 AND 1.59. Frederick C. Grant and John P. Gapcynski. March 1952. 27p. diagrs., photos., tabs. (NACA RM L51L17)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

A ROCKET-MODEL INVESTIGATION OF THE LONGITUDINAL STABILITY, LIFT, AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION WITH HORIZONTAL TAIL OF ASPECT RATIO 4.33. Robert F. Peck and James A. Hollinger. August 1953. 33p. diagrs., photos. (NACA RM L53F19a)

COMPARISON OF THEORETICAL AND EXPERIMENTAL ZERO-LIFT DRAG-RISE CHARACTERISTICS OF WING-BODY-TAIL COMBINATIONS NEAR THE SPEED OF SOUND. George H. Holdaway. October 1953. 27p. diagrs., tab. (NACA RM A53H17)

(1) AERODYNAMICS

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. M. Leroy Spearman. November 1953. 34p. diagrs., tabs. (NACA RM L53I22)

RECENT DESIGN STUDIES DIRECTED TOWARD ELIMINATION OF PITCH-UP. Joseph Weil and W. H. Gray. November 1953. 16p. diagrs., tab. (NACA RM L53I23c)

STATIC LATERAL STABILITY CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. Frederick C. Grant and Ross B. Robinson. November 1953. 39p. diagrs., photo., tabs. (NACA RM L53I29a)

EFFECTS OF LEADING-EDGE CHORD EXTENSIONS AND AN ALL-MOVABLE HORIZONTAL TAIL ON THE AERODYNAMIC CHARACTERISTICS OF A WING-BODY COMBINATION EMPLOYING A TRIANGULAR WING OF ASPECT RATIO 3 MOUNTED IN A HIGH POSITION AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel and Frank A. Pfyl. January 1954. 35p. diagrs., photo., tabs. (NACA RM A53J14a)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

AN EXPERIMENTAL INVESTIGATION OF REDUCTION IN TRANSONIC DRAG RISE AT ZERO LIFT BY THE ADDITION OF VOLUME TO THE FUSELAGE OF A WING-BODY-TAIL CONFIGURATION AND A COMPARISON WITH THEORY. George H. Holdaway. August 1954. 35p. diagrs., photos., tabs. (NACA RM A54F22)

EFFECTS OF CANOPY, REVISED VERTICAL TAIL, AND A YAW-DAMPER VANE ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT A MACH NUMBER OF 2.01. Ross B. Robinson. August 1954. 29p. diagrs., tabs. (NACA RM L54F25)

LOW-SPEED MEASUREMENT OF STATIC STABILITY AND DAMPING DERIVATIVES OF A 60° DELTA-WING MODEL FOR ANGLES OF ATTACK OF 0° TO 90°. Donald E. Hewes. September 1954. 30p. diagrs., photo., tab. (NACA RM L54G22a)

THE EFFECT OF AN OPERATING PROPELLER ON THE AERODYNAMIC CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL OF A VERTICAL-RISING AIRPLANE HAVING AN UNSWEPT WING OF ASPECT RATIO 3. Fred B. Sutton and Donald A. Buell. November 1954. 90p. diagrs., photos., tabs. (NACA RM A52E06)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 RESEARCH AIRPLANE OBTAINED DURING DEMONSTRATION FLIGHTS TO A MACH NUMBER OF 1.20. Donald R. Bellman and Edward D. Murphy. December 1954. 23p. diagrs., photos., tab. (NACA RM H54I17)

LOW-SPEED MEASUREMENTS OF ROLLING AND YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Joseph L. Johnson, Jr. December 1954. 17p. diagrs., tab. (NACA RM L54G27)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS AND SMALL ANGLES OF ATTACK OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 3 WITH AN NACA 64A006 AIRFOIL SECTION. George H. Holdaway. January 1955. 32p. diagrs., photo., tab. (NACA RM A54I17)

LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-BODY-TAIL COMBINATION HAVING A WING WITH 45° OF SWEEPBACK AND A TAIL IN VARIOUS VERTICAL POSITIONS. Jack D. Stephenson, Angelo Bandettini, and Ralph Selan. January 1955. 64p. diagrs., photos., tabs. (NACA RM A54K09)

INVESTIGATION OF THE LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION AT MACH NUMBERS FROM 0.6 TO 1.1 BY MEANS OF A ROCKET-PROPELLED MODEL. Jesse L. Mitchell and Robert F. Peck. February 1955. 37p. diagrs., photo., tabs. (NACA RM L54L20)

THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF SEVERAL WING-FUSELAGE-TAIL COMBINATIONS HAVING SWEPTBACK WINGS WITH NACA FOUR-DIGIT THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. March 1955. 128p. diagrs., photos., tab. (NACA RM A54L08)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Loren G. Bright. March 1955. 40p. diagrs., photos., tabs. (NACA RM A54L27)

LATERAL STABILITY CHARACTERISTICS AT LOW LIFT BETWEEN MACH NUMBERS OF 0.85 AND 1.15 OF A ROCKET-PROPELLED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Allen B. Henning. April 1955. 50p. diagrs., photos., tabs. (NACA RM L55A31)

LIFT, DRAG, AND LONGITUDINAL STABILITY AT MACH NUMBERS FROM 0.8 TO 2.1 OF A ROCKET-POWERED MODEL HAVING A TAPERED UNSWEPT WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. April 1955. 29p. diagrs., photo., tabs. (NACA RM L55B10)

A COMPARISON AT MACH NUMBERS UP TO 0.92 OF THE CALCULATED AND EXPERIMENTAL DOWNWASH AND WAKE CHARACTERISTICS AT VARIOUS HORIZONTAL TAIL HEIGHTS BEHIND A WING WITH 45° OF SWEEPBACK. Jack D. Stephenson, Ralph Selan, and Angelo Bandettini. June 1955. 81p. diagrs., photos., tabs. (NACA RM A55D27a)

ADDITIONAL MEASUREMENTS OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. July 1955. 31p. diagrs. (NACA RM A55F02a)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF VARIOUS UNDERWING EXTERNAL-STORE ARRANGEMENTS ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. H. Norman Silvers and Thomas J. King, Jr. July 1955. 59p. diagrs., photos., tab. (NACA RM L55D11)

ADDITIONAL COMPARISONS BETWEEN COMPUTED AND MEASURED TRANSONIC DRAG-RISE COEFFICIENTS AT ZERO LIFT FOR WING-BODY-TAIL CONFIGURATIONS. George H. Holdaway. August 1955. 43p. diagrs., photo., tabs. (NACA RM A55F06)

SUMMARY AND ANALYSIS OF HORIZONTAL-TAIL CONTRIBUTION TO LONGITUDINAL STABILITY OF SWEPT-WING AIRPLANES AT LOW SPEEDS. Robert H. Neely and Roland F. Griner. August 1955. ii, 133p. diagrs., tabs. (NACA RM L55E23a)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 2. Maurice D. White. September 1955. 39p. diagrs., photo., tabs. (NACA RM A55F21)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL HAVING CROPPED-DELTA AND UNSWEPT WING PLAN FORMS AND SEVERAL TAIL CONFIGURATIONS. Albert G. Few, Jr. November 1955. 107p. diagrs., photo., tab. (NACA RM L55I23a)

THE EFFECT OF LEADING-EDGE EXTENSIONS OF THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-FUSELAGE-TAIL COMBINATION HAVING A 40° SWEPTBACK WING WITH NACA 64A THICKNESS DISTRIBUTION. Fred B. Sutton. January 1956. 52p. diagrs., photos., tabs. (NACA RM A55I29)

AN INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC MACH NUMBERS OF A SWEPT-WING SUPERSONIC BOMBER CONFIGURATION. Ralph P. Bielat and J. Lawrence Cooper. February 1956. 92p. diagrs., photos., tabs. (NACA RM L53F05)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF FUSELAGE CROSS-SECTION SHAPE AND WING HEIGHT ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL HAVING A 45° SWEPT WING. Thomas J. King, Jr. February 1956. 61p. diagrs., photo. (NACA RM L55J25)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEED OF THE ROLLING STABILITY DERIVATIVES OF A COMPLETE MODEL HAVING A CLIPPED-DELTA WING AND A HIGH HORIZONTAL TAIL. William C. Sleeman, Jr., and Albert G. Few, Jr. February 1956. 32p. diagrs., tab. (NACA RM L55K11)

SOME EFFECTS OF AILERONS ON THE VARIATION OF AERODYNAMIC CHARACTERISTICS WITH SIDESLIP AT LOW SPEED. Kenneth W. Goodson. March 1956. 40p. diagrs., tab. (NACA RM L55L20)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING DIHEDRAL ANGLE AND FIN LENGTH ON THE STATIC STABILITY CHARACTERISTICS OF A MODEL HAVING AN 82° DELTA WING. Kenneth P. Spreemann. April 1956. 30p. diagrs. (NACA RM L55L30a)

AN EXPERIMENTAL STUDY AT HIGH SUBSONIC SPEEDS OF SEVERAL TAIL CONFIGURATIONS ON A MODEL WITH AN UNSWEPT WING. William C. Sleeman, Jr. April 1956. 67p. diagrs., photos. (NACA RM L56A06a)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF HORIZONTAL-TAIL LOCATION ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING A SWEPTBACK WING IN A HIGH LOCATION. H. Norman Silvers and Thomas J. King, Jr. April 1956. 46p. diagrs., tab. (NACA RM L56B10)

DATA FROM LARGE-SCALE LOW-SPEED TESTS OF AIRPLANE CONFIGURATIONS WITH A THIN 45° SWEPT WING INCORPORATING SEVERAL LEADING-EDGE CONTOUR MODIFICATIONS. William T. Evans. May 1956. 110p. diagrs., photo., tabs. (NACA RM A56B17)

A HORIZONTAL-TAIL ARRANGEMENT FOR COUNTERACTING STATIC LONGITUDINAL INSTABILITY OF SWEPTBACK WINGS. George G. Edwards and Howard F. Savage. May 1956. 51p. diagrs., photos., tab. (NACA RM A56D06)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

LOW-SPEED WIND-TUNNEL RESULTS FOR A THIN ASPECT-RATIO-1.85 POINTED-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAPS. Albert E. Brown. July 1956. 31p. diagrs., tabs. (NACA RM L56D03)

EFFECT OF WING HEIGHT AND DIHEDRAL ON THE LATERAL STABILITY CHARACTERISTICS AT LOW LIFT OF A 45° SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM TIME-VECTOR ANALYSES OF ROCKET-PROPELLED-MODEL FLIGHTS AT MACH NUMBERS FROM 0.7 TO 1.3. Clarence L. Gillis and Rowe Chapman, Jr. September 1956. 70p. diagrs., photos., tabs. (NACA RM L56E17)

WIND-TUNNEL INVESTIGATION OF THE DAMPING IN ROLL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS. Russell W. McDearmon. September 1956. 36p. diagrs., photos. (NACA RM L56F07)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

COMBINED EFFECTS OF WING TAPER RATIO AND LOW HORIZONTAL-TAIL POSITION ON LONGITUDINAL STABILITY OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Stanley H. Spooner. October 1956. 28p. diagrs., tab. (NACA RM L56H24)

ANALYSIS OF THE VERTICAL-TAIL LOADS MEASURED DURING A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE DOUGLAS X-3 RESEARCH AIRPLANE. William L. Marcy, Harriet J. Stephenson, and Thomas V. Cooney. November 1956. 32p. diagrs., photo., tab. (NACA RM H56H08)

LOW-SPEED MEASUREMENT OF TAIL CONTRIBUTION TO ROLLING STABILITY DERIVATIVES AND AIR-FLOW ANGULARITY AT THE TAIL FOR AN X-TAIL MODEL IN STEADY ROLL INCLUDING SOME EFFECTS OF WING-TIP STORES. Donald R. Riley. November 1956. 28p. diagrs., photo., tab. (NACA RM L56I21)

FORCE TEST RESULTS FOR BODY-MOUNTED LATERAL CONTROLS AND SPEED BRAKES ON A 45° SWEPT-WING MODEL AT MACH NUMBERS FROM 0.80 TO 0.98. F. E. West, Jr., and Chris C. Critzos. December 1956. 32p. diagrs., photos., tab. (NACA RM L56I05)

LIFT AND CENTER OF PRESSURE OF WING-BODY-TAIL COMBINATIONS AT SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen, and George E. Kaattari. 1957. ii, 70p. diagrs., tabs. (NACA Rept. 1307)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

STATIC LONGITUDINAL CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A COMPLETE AIRPLANE MODEL WITH A HIGHLY TAPERED WING HAVING THE 0.80 CHORD LINE UNSWEPT AND WITH SEVERAL TAIL CONFIGURATIONS. Kenneth W. Goodson. January 1957. 57p. diagrs., photo., tabs. (NACA RM L56J03)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. I - EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE LONGITUDINAL CHARACTERISTICS. Bruce E. Tinling and Armando E. Lopez. July 1957. 85p. diagrs., photo., tabs. (NACA TN 4041. Supersedes RM A53L15)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1957. 48p. diagrs., photos., tabs. (NACA TN 4044. Supersedes RM A55E04)

EFFECT OF FREQUENCY OF SIDESLIPPING MOTION ON THE LATERAL STABILITY DERIVATIVES OF A TYPICAL DELTA-WING AIRPLANE. Jacob H. Lichtenstein and James L. Williams. September 1957. 46p. diagrs., photos., tabs. (NACA RM L57F07)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE FLOW-FIELD CHARACTERISTICS AND GROUND INFLUENCE ON A MODEL WITH JET-AUGMENTED FLAPS. Raymond D. Vogler and Thomas R. Turner. September 1957. 48p. diagrs., photos. (NACA TN 4116)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF GROUND PROXIMITY AND OF SPLIT FLAPS ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL OSCILLATING IN YAW. Byron M. Jaquet. September 1957. 32p. diagrs. photos., tab. (NACA TN 4119)

WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL STABILITY AND TRIM CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED FLAP. Joseph L. Johnson, Jr. January 1958. 89p. diagrs., tab. (NACA TN 4177)

EFFECTS OF FIXING BOUNDARY-LAYER TRANSITION FOR AN UNSWEPT-WING MODEL AND AN EVALUATION OF POROUS TUNNEL-WALL INTERFERENCE FOR MACH NUMBERS FROM 0.60 TO 1.40. Louis S. Stivers, Jr., and Garth W. Lippmann. April 1958. 37p. diagrs. (NACA TN 4228)

DATA FROM FLOW-FIELD SURVEYS BEHIND A LARGE-SCALE THIN STRAIGHT WING OF ASPECT RATIO 3. William T. Evans. June 1958. 13p. diagrs. (NACA RM A58D17)

A NUMERICAL METHOD FOR EVALUATING WAVE DRAG. Maurice S. Cahn and Walter B. Olstad. June 1958. 13p. diagrs., tabs. (NACA TN 4258)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF FLIGHT CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT AIRPLANE MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP. Joseph L. Johnson, Jr. July 1958. 32p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4255)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. August 1958. 35p. diagrs., photo. (NACA TN 4016. Supersedes RM L55E20b)

EFFECTS OF FREQUENCY AND AMPLITUDE ON THE YAWING DERIVATIVES OF TRIANGULAR, SWEPT, AND UNSWEPT WINGS AND OF A TRIANGULAR-WING—FUSELAGE COMBINATION WITH AND WITHOUT A TRIANGULAR TAIL PERFORMING SINUSOIDAL YAWING OSCILLATIONS. William Letko and Herman S. Fletcher. September 1958. 52p. diagrs., photos., tabs. (NACA TN 4390)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 60° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. Walter D. Wolhart and David F. Thomas, Jr. September 1958. 41p. diagrs., tabs. (NACA TN 4397)

(1.7.1.1.4)
Propeller and Jet Interference

THE EFFECT OF AN OPERATING PROPELLER ON THE AERODYNAMIC CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL OF A VERTICAL-RISING AIRPLANE HAVING AN UNSWEPT WING OF ASPECT RATIO 3. Fred B. Sutton and Donald A. Buell. November 1954. 90p. diagrs., photos., tabs. (NACA RM A52E06)

(1.7.1.1.5)
Stores

FLIGHT TESTS OF A MODEL HAVING SELF-SUPPORTING FUEL-CARRYING PANELS HINGED TO THE WING TIPS. Robert E. Shanks and David C. Grana. November 2, 1949. 10p. diagrs., tab. (NACA RM L9I07a)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

INVESTIGATION OF THE AERODYNAMIC EFFECTS OF AN EXTERNAL STORE IN COMBINATION WITH 60° DELTA AND LOW-ASPECT-RATIO TAPERED WINGS AT A MACH NUMBER OF 1.9. Ellery B. May, Jr. January 9, 1951. 46p. diagrs., photos. (NACA RM L50K03)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A HIGH-ASPECT-RATIO BOMBER MODEL WITH SELF-SUPPORTING FREE-FLOATING FUEL TANKS ATTACHED TO THE WING TIPS. Charles V. Bennett and Robert B. Cadman. August 1951. 12p. diagrs., tab. (NACA RM L51E17)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECT AT M = 1.60 OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF TWO WING-BODY COMBINATIONS WITH 47° SWEPTBACK WINGS. Lowell E. Hasel and John R. Sevier, Jr. January 1952. 31p. diagrs., photos., tabs. (NACA RM L51K14a)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECT AT M = 2.01 OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF TWO WING-BODY COMBINATIONS WITH 47° SWEPTBACK WINGS. Cornelius Driver. July 1952. 27p. diagrs., photos., tab. (NACA RM L52F03)

EFFECTS OF SYSTEMATICALLY VARYING THE SPANWISE AND VERTICAL LOCATION OF AN EXTERNAL STORE ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT TAPERED WING OF ASPECT RATIO 4 AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. August 1952. 34p. diagrs. (NACA RM L52F13)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A HIGH-ASPECT-RATIO BOMBER MODEL WITH A SWEPTBACK-WING FIGHTER MODEL ATTACHED TO EACH WING TIP. Charles V. Bennett and Peter C. Boisseau. September 1952. 17p. diagrs., tabs. (NACA RM L52E08)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS OF TWO 47° SWEPTBACK WING-BODY CONFIGURATIONS. Ralph P. Bielat and Daniel E. Harrison. September 1952. 87p. diagrs., photos., tab. (NACA RM L52G02)

EXPLORATORY ROCKET FLIGHT TESTS TO INVESTIGATE THE USE OF A FREELY SPINNING MONOPLANE TAIL FOR STABILIZING A BODY. Paul E. Purser and Joseph E. Stevens. October 1952. 25p. diagrs., photos., tab. (NACA RM L52I05a)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF BODIES MOUNTED FROM THE WING OF AN UNSWEPT-WING-FUSELAGE MODEL, INCLUDING MEASUREMENTS OF BODY LOADS. H. Norman Silvers and Thomas J. King, Jr. November 1952. 37p. diagrs., photos., tabs. (NACA RM L52J08)

EFFECTS OF THE SPANWISE, CHORDWISE, AND VERTICAL LOCATION OF AN EXTERNAL STORE ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED WING OF ASPECT RATIO 4 AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. January 1953. 31p. diagrs., photo. (NACA RM L52J27)

EFFECTS OF SIZE OF EXTERNAL STORES ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT AND A 45° SWEPTBACK WING OF ASPECT RATIO 4 AND A 60° DELTA WING AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. January 1953. 55p. diagrs., photos., tab. (NACA RM L52K20a)

THE EFFECT OF NACELLE COMBINATIONS AND SIZE ON THE ZERO-LIFT DRAG OF A 45° SWEPTBACK WING AND BODY CONFIGURATION AS DETERMINED BY FREE-FLIGHT TESTS AT MACH NUMBERS BETWEEN 0.8 AND 1.3. Sherwood Hoffman and William B. Pepper, Jr. June 1953. 22p. diagrs., photos., tabs. (NACA RM L53E25)

INVESTIGATION OF THE EFFECT OF SPANWISE POSITIONING OF A VERTICALLY SYMMETRIC OGIVE-CYLINDER NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6 WITH AND WITHOUT A FUSELAGE. H. Norman Silvers and Thomas J. King, Jr. October 1953. 62p. diagrs., tabs. (NACA RM L53H17)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF WING-MOUNTED EXTERNAL STORES ON THE LOADING AND AERODYNAMIC CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING COMBINED WITH A FUSELAGE. H. Norman Silvers, Thomas J. King, Jr., and William J. Alford, Jr. March 1954. 36p. diagrs., tabs. (NACA RM L54A21)

THE EFFECT OF NACELLE LOCATION ON THE ZERO-LIFT DRAGS OF 45° SWEPTBACK WING-BODY CONFIGURATIONS HAVING BOATTAIL AND CYLINDRICAL AFTERBODIES AS DETERMINED BY FLIGHT TESTS AT TRANSONIC SPEEDS. Sherwood Hoffman and Austin L. Wolff. March 1954. 29p. diagrs., photos., tabs. (NACA RM L54B02)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF FINNED AND UNFINNED BODIES MOUNTED AT VARIOUS LOCATIONS FROM THE WINGS OF UNSWEPT, AND SWEPT-WING–FUSELAGE MODELS, INCLUDING MEASUREMENTS OF BODY LOADS. William J. Alford, Jr., and H. Norman Silvers. April 1954. 93p. diagrs., photos., tabs. (NACA RM L54B18)

THE EFFECTS OF WING-MOUNTED EXTERNAL STORES ON THE TRIM, BUFFET, AND DRAG CHARACTERISTICS OF A ROCKET-PROPELLED MODEL HAVING A 45° SWEPTBACK WING. Allen B. Henning. April 1954. 25p. diagrs., photos., tabs. (NACA RM L54B19)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF ADDING VARIOUS COMBINATIONS OF MISSILES ON THE AERODYNAMIC CHARACTERISTICS OF SWEPTBACK AND UNSWEPT WINGS COMBINED WITH A FUSELAGE. H. Norman Silvers and William J. Alford, Jr. June 1954. 39p. diagrs., photo., tabs. (NACA RM L54D20)

EXPLORATORY INVESTIGATION OF EXTERNAL STORES ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT A MACH NUMBER OF 2.01. Norman F. Smith. August 1954. 25p. diagrs., photos. (NACA RM L54F02)

EFFECTS OF SOME EXTERNAL-STORE MOUNTING ARRANGEMENTS AND STORE SHAPES ON THE BUFFET AND DRAG CHARACTERISTICS OF WINGLESS ROCKET-POWERED MODELS AT MACH NUMBERS FROM 0.7 TO 1.4. Homer P. Mason and Allen B. Henning. December 1954. 45p. diagrs., photos., tabs. (NACA RM L54I20a)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

FLUTTER INVESTIGATION OF A TRUE-SPEED DYNAMIC MODEL WITH VARIOUS TIP-TANK CONFIGURATIONS. John L. Sewall, Robert W. Herr, and William B. Igoe. March 1955. 80p. diagrs., photos., tabs. (NACA RM L54I19)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF VARIOUS UNDERWING EXTERNAL-STORE ARRANGEMENTS ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. H. Norman Silvers and Thomas J. King, Jr. July 1955. 59p. diagrs., photos., tab. (NACA RM L55D11)

FLIGHT MEASUREMENTS OF THE LOADS AND MOMENTS ON AN EXTERNAL STORE MOUNTED UNDER THE WING OF A SWEPT-WING FIGHTER-TYPE AIRPLANE DURING YAWING AND ROLLING MANEUVERS. Harold A. Hamer and Thomas C. O'Bryan. September 1955. 37p. diagrs., photo., tab. (NACA RM L55G22)

AERODYNAMIC LOADS ON AN EXTERNAL STORE ADJACENT TO A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.70 TO 1.96, INCLUDING AN EVALUATION OF TECHNIQUES USED. Lawrence D. Guy and William M. Hadaway. November 1955. 109p. diagrs., photo., tab. (NACA RM L55H12)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF EXTERNAL STORES AND STORE POSITION ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas C. Kelly. November 1955. 31p. diagrs., photos., tab. (NACA RM L55I07)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF SIDESLIP ON THE AERODYNAMIC LOADS ON FINNED AND UNFINNED BODIES MOUNTED FROM THE WING OF A SWEPT-WING–FUSELAGE MODEL. Thomas J. King, Jr. April 1956. 50p. diagrs., tabs. (NACA RM L56A24)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF STORE AND HORIZONTAL-TAIL LOADS AND SOME EFFECTS OF FUSELAGE-AFTERBODY MODIFICATIONS ON A SWEPT-WING FIGHTER AIRPLANE, Joseph M. Hallissy, Jr., and Louis Kudlacik. April 1956. 79p. diagrs., photos. (NACA RM L56A26)

WIND-TUNNEL MEASUREMENTS OF WING BUFFETING ON 1/16-SCALE MODEL OF DOUGLAS D-558-II RESEARCH AIRPLANE. William B. Kemp, Jr., and Thomas J. King, Jr. September 1956. 34p. diagrs., photos., tabs. (NACA RM L56G31)

LOW-SPEED MEASUREMENT OF TAIL CONTRIBUTION TO ROLLING STABILITY DERIVATIVES AND AIR-FLOW ANGULARITY AT THE TAIL FOR AN X-TAIL MODEL IN STEADY ROLL INCLUDING SOME EFFECTS OF WING-TIP STORES. Donald R. Riley. November 1956. 28p. diagrs., photo., tab. (NACA RM L56I21)

THEORETICAL CALCULATIONS OF SUPERSONIC WAVE DRAG AT ZERO LIFT FOR A PARTICULAR STORE ARRANGEMENT. Kenneth Margolis, Frank S. Malvestuto, Jr., and Peter J. Maxie, Jr. January 1958. 37p. diagrs., tab. (NACA TN 4120)

(1.7.1.1.6)
Jet Interference

SHAPE OF INITIAL PORTION OF BOUNDARY OF SUPERSONIC AXISYMMETRIC FREE JETS AT LARGE JET PRESSURE RATIOS. Eugene S. Love and Louise P. Lee. January 1958. 29p. diagrs. (NACA TN 4195)

(1.7.1.2)
SPECIFIC AIRPLANES

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Joseph Weil, Paul Comisarow, and Kenneth W. Goodson. October 17, 1947. 84p. diagrs., photos., tab. (NACA RM L7G28)

SUPERSONIC-TUNNEL TESTS OF TWO SUPERSONIC AIRPLANE MODEL CONFIGURATIONS. Macon C. Ellis, Jr., Lowell E. Hasel, and Carl E. Grigsby. December 31, 1947. 49p. diagrs., photos., tab. (NACA RM L7J15)

WIND-TUNNEL INVESTIGATION OF THE STABILITY OF THE JETTISONABLE NOSE SECTION OF THE XS-2 AIRPLANE. Stanley H. Scher and Roscoe H. Goodwin. October 14, 1948. 19p. diagrs., photos., tabs. (NACA RM L8I14)

RESULTS OBTAINED DURING EXTENSION OF U.S. AIR FORCE TRANSONIC-FLIGHT TESTS OF XS-1 AIRPLANE. Harold R. Goodman and Hubert M. Drake. November 16, 1948. 12p. diagrs. (NACA RM L8I28)

DRAG MEASUREMENTS IN FLIGHT ON THE 10-PERCENT-THICK AND 8-PERCENT-THICK WING X-1 AIRPLANES. John J. Gardner. November 19, 1948. 17p. diagrs., photo. (NACA RM L8K05)

AN INVESTIGATION IN THE LANGLEY 20-FOOT FREE-SPINNING TUNNEL OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/30-SCALE MODEL OF THE BELL X-2 AIRPLANE. Lawrence J. Gale. July 20, 1949. 15p. diagrs., photo., tabs. (NACA RM L9G15a)

ANALYSIS OF THE DYNAMIC-LATERAL-STABILITY CHARACTERISTICS OF THE BELL X-2 AIRPLANE AS AFFECTED BY VARIATIONS IN MASS, AERODYNAMIC, AND DIMENSIONAL PARAMETERS. W. H. Michael, Jr., and M. J. Queijo. August 10, 1949. 33p. diagrs., tabs. (NACA RM L9G13)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS - WING AND FUSELAGE PRESSURE DISTRIBUTION. Joseph W. Cleary and Jack A. Mellenthin. June 22, 1950. 61p. diagrs., photos. (NACA RM A50D07)

SUPPLEMENTARY ANALYSIS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE BELL X-2 AIRPLANE AS AFFECTED BY VARIATIONS IN MASS AND AERODYNAMIC PARAMETERS. William H. Michael, Jr., and M. J. Queijo. June 26, 1950. 15p. diagrs. (NACA RM L50E08)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. DETERMINATION OF THE AERODYNAMIC CENTER AND ZERO-LIFT PITCHING-MOMENT COEFFICIENT OF THE WING-FUSELAGE COMBINATION BY MEANS OF TAIL-LOAD MEASUREMENTS IN THE MACH NUMBER RANGE FROM 0.37 TO 0.87. John P. Mayer, George M. Valentine, and Geraldine C. Mayer. July 11, 1950. 27p. diagrs., photos., tab. (NACA RM L50D10)

PRELIMINARY RESULTS OF THE FLIGHT INVESTIGATION BETWEEN MACH NUMBERS OF 0.80 AND 1.36 OF A ROCKET-POWERED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Homer P. Mason. October 31, 1950. 30p. diagrs., photos., tab. (NACA RM L50H29a)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION USING ROCKET-PROPELLED MODELS. PRELIMINARY RESULTS AT MACH NUMBERS FROM 0.65 TO 1.25. Jesse L. Mitchell and Robert F. Peck. December 1, 1950. 30p. diagrs., photos. (NACA RM L50J03)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF WING LOADS AT MACH NUMBERS UP TO 0.87. John P. Mayer, George M. Valentine, and Beverly J. Swanson. December 26, 1950. 35p. diagrs., photos., tab. (NACA RM L50H16)

FLIGHT-DETERMINED BUFFET BOUNDARIES OF TEN AIRPLANES AND COMPARISONS WITH FIVE BUFFETING CRITERIA. Burnett L. Gadeberg and Howard L. Ziff. January 5, 1951. 44p. diagrs., photo., tab. (NACA RM A50I27)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF THE DISTRIBUTION OF THE AERODYNAMIC LOAD AMONG THE WING, FUSELAGE, AND HORIZONTAL TAIL AT MACH NUMBERS UP TO 0.87. John P. Mayer and George M. Valentine. January 19, 1951. 33p. diagrs., photos., tab. (NACA RM L50J13)

SUMMARY OF SPIN AND RECOVERY CHARACTERISTICS OF 12 MODELS OF FLYING-WING AND UNCONVENTIONAL-TYPE AIRPLANES. Ralph W. Stone, Jr., and Burton E. Hultz. March 1, 1951. 95p. diagrs., photo., tabs. (NACA RM L50L29)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

WIND-TUNNEL TESTS OF A 1/12-SCALE MODEL OF THE X-3 AIRPLANE AT SUBSONIC AND SUPERSONIC SPEEDS. Robert N. Olson and Robert S. Chubb. September 14, 1951. 111p. diagrs., photo., tabs. (NACA RM A51F12)

ANALYSIS OF LONGITUDINAL STABILITY AND TRIM OF THE BELL X-1 AIRPLANE AT A LIFT COEFFICIENT OF 0.3 TO MACH NUMBERS NEAR 1.05. Hubert M. Drake, John R. Carden, and Harry P. Clagett. October 1951. 30p. diagrs., photo., tab. (NACA RM L51H01)

FREE-SPINNING TUNNEL INVESTIGATION OF A 1/20-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE. Burton E. Hultz. December 26, 1951. 23p. diagrs., photos., tab. (NACA RM L51K12)

HANDLING QUALITIES OF HIGH-SPEED AIRPLANES. W. C. Williams and A. S. Crossfield. January 1952. 17p. diagrs. (NACA RM L52A08)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF INLET-ENGINE MATCHING FOR TURBOJET-POWERED AIRCRAFT AT MACH NUMBERS UP TO 2.0. Carl F. Schueller and Fred T. Esenwein. February 1952. 31p. diagrs., photos. (NACA RM E51K20)

WING LOAD DISTRIBUTION ON A SWEPT-WING AIRPLANE IN FLIGHT AT MACH NUMBERS UP TO 1.11 AND COMPARISON WITH THEORY. L. Stewart Rolls and Frederick H. Matteson. April 1952. 73p. diagrs., photos., tabs. (NACA RM A52A31)

PERFORMANCE CHARACTERISTICS AT MACH NUMBERS TO 2.0 OF VARIOUS TYPES OF SIDE INLETS MOUNTED ON FUSELAGE OF PROPOSED SUPERSONIC AIRPLANE. I - TWO-DIMENSIONAL COMPRESSION-RAMP INLETS WITH SEMICIRCULAR COWLS. Alfred S. Valerino. July 1952. 43p. diagrs., photos., tab. (NACA RM E52E02)

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

FLIGHT DETERMINATION OF THE LONGITUDINAL STABILITY IN ACCELERATED MANEUVERS AT TRANSONIC SPEEDS FOR THE DOUGLAS D-558-II RESEARCH AIRPLANE INCLUDING THE EFFECTS OF AN OUTBOARD WING FENCE. Jack Fischel and Jack Nugent. March 1953. 28p. diagrs., photo., tab. (NACA RM L53A16)

MAXIMUM ALTITUDE AND MAXIMUM MACH NUMBER OBTAINED WITH THE MODIFIED DOUGLAS D-558-II RESEARCH AIRPLANE DURING DEMONSTRATION FLIGHTS. Theodore E. Dahlen. April 1953. 14p. diagrs., tabs. (NACA RM L53B24)

SOME MEASUREMENTS OF THE BUFFET REGION OF A SWEPT-WING RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC MACH NUMBERS. Thomas F. Baker. May 1953. 14p. diagrs., photos., tab. (NACA RM L53D06)

MEASUREMENTS OBTAINED DURING THE GLIDE-FLIGHT PROGRAM OF THE BELL X-2 RESEARCH AIRPLANE. Richard E. Day. July 30, 1953. 27p. diagrs., photos., tabs. (NACA RM L53G03a)

A ROCKET-MODEL INVESTIGATION OF THE LONGITUDINAL STABILITY, LIFT, AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION WITH HORIZONTAL TAIL OF ASPECT RATIO 4.33. Robert F. Peck and James A. Hollinger. August 1953. 33p. diagrs., photos. (NACA RM L53F19a)

TRANSONIC FLIGHT MEASUREMENT OF THE AERODYNAMIC LOAD ON THE EXTENDED SLAT OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. James R. Peele. August 1953. 34p. diagrs., photos., tab. (NACA RM L53F29)

CORRELATION OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF ROLL-OFF IN LOW-SPEED STALLS ON A 35° SWEPT-WING AIRCRAFT. Seth B. Anderson. September 1953. 17p. diagrs., photos., tabs. (NACA RM A53G22)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

SOME MEASUREMENTS OF BUFFETING ENCOUNTERED BY A DOUGLAS D-558-II RESEARCH AIRPLANE IN THE MACH NUMBER RANGE FROM 0.5 TO 0.95. Thomas F. Baker. November 1953. 22p. diagrs., photos., tabs. (NACA RM L53I17)

STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. M. Leroy Spearman. November 1953. 34p. diagrs., tabs. (NACA RM L53I22)

STATIC LATERAL STABILITY CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. Frederick C. Grant and Ross B. Robinson. November 1953. 39p. diagrs., photo., tabs. (NACA RM L53I29a)

DETERMINATION OF LONGITUDINAL STABILITY IN SUPERSONIC ACCELERATED MANEUVERS FOR THE DOUGLAS D-558-II RESEARCH AIRPLANE. Herman O. Ankenbruck. February 1954. 29p. diagrs., photos., tab. (NACA RM L53J20)

MEASURED DATA PERTAINING TO BUFFETING AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas F. Baker. February 1954. 16p. diagrs., photos., tab. (NACA RM L53L10)

EFFECT OF WING SLATS AND INBOARD WING FENCES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS. Jack Fischel. February 1954. 125p. diagrs., photos., tabs. (NACA RM L53L16)

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE OBTAINED IN EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Jack Nugent. August 1954. 20p. diagrs., photo., tab. (NACA RM L54F03)

EFFECTS OF CANOPY, REVISED VERTICAL TAIL, AND A YAW-DAMPER VANE ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT A MACH NUMBER OF 2.01. Ross B. Robinson. August 1954. 29p. diagrs., tabs. (NACA RM L54F25)

WING PRESSURE DISTRIBUTIONS AT LOW LIFT FOR THE XF-92A DELTA-WING AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener. October 1954. 54p. diagrs., photos., tabs. (NACA RM H54H06)

LONGITUDINAL STABILITY CHARACTERISTICS IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE EQUIPPED WITH A LEADING-EDGE WING CHORD-EXTENSION. Jack Fischel and Cyril D. Brunn. October 1954. 62p. diagrs., photos., tab. (NACA RM H54H16)

THE EFFECT OF AN OPERATING PROPELLER ON THE AERODYNAMIC CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL OF A VERTICAL-RISING AIRPLANE HAVING AN UNSWEPT WING OF ASPECT RATIO 3. Fred B. Sutton and Donald A. Buell. November 1954. 90p. diagrs., photos., tabs. (NACA RM A52E06)

DETERMINATION OF LONGITUDINAL HANDLING QUALITIES OF THE D-558-II RESEARCH AIRPLANE AT TRANSONIC AND SUPERSONIC SPEEDS TO A MACH NUMBER OF ABOUT 2.0. Herman O Ankenbruck. November 1954. 25p. diagrs., photos., tab. (NACA RM H54G29a)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 RESEARCH AIRPLANE OBTAINED DURING DEMONSTRATION FLIGHTS TO A MACH NUMBER OF 1.20. Donald R. Bellman and Edward D. Murphy. December 1954. 23p. diagrs., photos., tab. (NACA RM H54I17)

LATERAL MOTIONS ENCOUNTERED WITH THE DOUGLAS D-558-II ALL-ROCKET RESEARCH AIRPLANE DURING EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Herman O. Ankenbruck and Chester H. Wolowicz. December 1954. 32p. diagrs., photos., tab. (NACA RM H54I27)

ROLLING PERFORMANCE OF THE REPUBLIC YF-84F AIRPLANE AS MEASURED IN FLIGHT. John B. McKay. January 1955. 24p. diagrs., photo., tab. (NACA RM H54G20a)

A LIMITED FLIGHT INVESTIGATION OF THE EFFECT OF DYNAMIC VIBRATION ABSORBERS ON THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. Jim Rogers Thompson and John E. Yeates, Jr. January 1955. 29p. diagrs., photos. (NACA RM L54K02)

RESULTS OF MEASUREMENTS MADE DURING THE APPROACH AND LANDING OF SEVEN HIGH-SPEED RESEARCH AIRPLANES. Wendell H. Stillwell. February 1955. 25p. diagrs., tab. (NACA RM H54K24)

INVESTIGATION OF THE LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION AT MACH NUMBERS FROM 0.6 TO 1.1 BY MEANS OF A ROCKET-PROPELLED MODEL. Jesse L. Mitchell and Robert F. Peck. February 1955. 37p. diagrs., photo., tabs. (NACA RM L54L20)

WING-LOAD MEASUREMENTS AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Glenn H. Robinson, George E. Cothren, Jr., and Chris Pembo. March 1955. 20p. diagrs., photos., tab. (NACA RM H54L27)

PRELIMINARY FLIGHT-DETERMINED PRESSURE DISTRIBUTIONS OVER THE WING OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT SUBSONIC AND TRANSONIC MACH NUMBERS. Gareth H. Jordan and C. Kenneth Hutchins, Jr. April 1955. 34p. diagrs., photos., tabs. (NACA RM H55A10)

LATERAL STABILITY CHARACTERISTICS AT LOW LIFT BETWEEN MACH NUMBERS OF 0.85 AND 1.15 OF A ROCKET-PROPELLED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Allen B. Henning. April 1955. 50p. diagrs., photos., tabs. (NACA RM L55A31)

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AS MEASURED IN FLIGHT. Thomas R. Sisk and Duane O. Muhleman. May 1955. 55p. diagrs., photos., tabs. (NACA RM H55A17)

STUDY OF SOME EFFECTS OF STRUCTURAL FLEXIBILITY ON THE LONGITUDINAL MOTIONS AND LOADS AS OBTAINED FROM FLIGHT MEASUREMENTS OF A SWEPT-WING BOMBER. James J. Donegan and Carl R. Huss. May 1955. 53p. diagrs., tabs. (NACA RM L54L16)

PRELIMINARY RESULTS FROM FLIGHT MEASUREMENTS IN GRADUAL-TURN MANEUVERS OF THE WING LOADS AND THE DISTRIBUTION OF LOAD AMONG THE COMPONENTS OF A BOEING B-47A AIRPLANE. T. V. Cooney, William H. Andrews, and William A. McGowan. June 1955. 20p. diagrs., photo., tab. (NACA RM L55B02)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE LOW-SPEED STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. July 1956. 62p. diagrs., photos., tabs. (NACA RM H55E31a)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF VARIOUS UNDERWING EXTERNAL-STORE ARRANGEMENTS ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. H. Norman Silvers and Thomas J. King, Jr. July 1955. 59p. diagrs., photos., tab. (NACA RM L55D11)

FLIGHT MEASUREMENTS OF THE LATERAL RESPONSE CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman. August 1955. 37p. diagrs., tabs. (NACA RM H55E26)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AUTOMATIC-PILOT CONTROL SYSTEMS. S. A. Sjoberg. September 1955. 12p. diagrs., tabs. (NACA RM L55F01b)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.7 TO 1.75 OF A FOUR-ENGINE SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM A ROCKET-PROPELLED MODEL TEST. Rowe Chapman, Jr. September 1955. 39p. diagrs., photos., tabs. (NACA RM L55F23)

FLIGHT MEASUREMENTS OF DIRECTIONAL STABILITY TO A MACH NUMBER OF 1.48 FOR AN AIRPLANE TESTED WITH THREE DIFFERENT VERTICAL TAIL CONFIGURATIONS. Hubert M. Drake, Thomas W. Finch, and James R. Peele. October 1955. 22p. diagrs., photos., tab. (NACA RM H55G26)

WING PRESSURE DISTRIBUTIONS OVER THE LIFT RANGE OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AT SUBSONIC AND TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1955. 135p. diagrs., photos., tabs. (NACA RM H55G07)

WIND-TUNNEL MEASUREMENTS OF THE DYNAMIC CROSS DERIVATIVE $C_{l_r} - C_{l_{\dot{\beta}}}$ (ROLLING MOMENT DUE TO YAWING VELOCITY AND TO ACCELERATION IN SIDESLIP) OF THE DOUGLAS D-558-II AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS INCLUDING DESCRIPTION OF THE TECHNIQUE. William B. Boatright. November 1955. 57p. diagrs., photos. (NACA RM L55H16)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF EXTERNAL STORES AND STORE POSITION ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas C. Kelly. November 1955. 31p. diagrs., photos., tab. (NACA RM L55I07)

EFFECT OF LARGE NEGATIVE DIHEDRAL OF THE HORIZONTAL TAIL ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A SWEPT-WING CONFIGURATION AT TRANSONIC SPEEDS. Donald D. Arabian. January 1956. 24p. diagrs., photos. (NACA RM L55I20)

MACH NUMBER MEASUREMENTS AND CALIBRATIONS DURING FLIGHT AT HIGH SPEEDS AND AT HIGH ALTITUDES INCLUDING DATA FOR THE D-558-II RESEARCH AIRPLANE. Cyril D. Brunn and Wendell H. Stillwell. March 1956. 31p. diagrs., tabs. (NACA RM H55J18)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AN ATTITUDE TYPE OF AUTOMATIC PILOT. S. A. Sjoberg, Walter R. Russell, and William L. Alford. April 1956. 60p. diagrs., photos., tabs. (NACA RM L56A12)

EFFECT OF FUSELAGE AIR BRAKES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF A SWEPT-WING FIGHTER MODEL AT TRANSONIC SPEEDS. Donald D. Arabian. April 1956. 22p. diagrs., photos. (NACA RM L56A25a)

SOME NOTES ON THE VIOLENT LATERAL-LONGITUDINAL COUPLING MOTIONS OF THE DOUGLAS X-3 AIRPLANE IN AILERON ROLLS. Ralph W. Stone, Jr. May 1956. 35p. diagrs., tab. (NACA RM L56C15)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE SUBSONIC AND TRANSONIC LONGITUDINAL HANDLING QUALITIES OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. June 1956. 57p. diagrs., photos., tabs. (NACA RM H56C30)

EFFECT OF WING SIZE AND AMOUNT OF INDENTATION ON APPLICABILITY OF TRANSONIC AREA RULE TO SWEPT-WING CONFIGURATIONS. James Rudyard Hall. July 1956. 33p. diagrs., photos., tabs. (NACA RM L55F03)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF JET, SPOILER, AND AILERON CONTROLS ON A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Raymond D. Vogler. July 1956. 52p. diagrs., photo., tabs. (NACA RM L56E25)

STATISTICAL MEASUREMENTS OF LANDING CONTACT CONDITIONS OF FIVE MILITARY AIRPLANES DURING ROUTINE DAYTIME OPERATIONS. Norman S. Silsby. August 1956. 17p. diagrs., tabs. (NACA RM L56F21a)

A SEMIEMPIRICAL PROCEDURE FOR ESTIMATING WING BUFFET LOADS IN THE TRANSONIC REGION. T. H. Skopinski and Wilber B. Huston. September 1956. 22p. diagrs., tab. (NACA RM L56E01)

WIND-TUNNEL INVESTIGATION OF THE DAMPING IN ROLL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS. Russell W. McDearmon. September 1956. 36p. diagrs., photos. (NACA RM L56F07)

WIND-TUNNEL MEASUREMENTS OF WING BUFFETING ON 1/16-SCALE MODEL OF DOUGLAS D-558-II RESEARCH AIRPLANE. William B. Kemp, Jr., and Thomas J. King, Jr. September 1956. 34p. diagrs., photos., tabs. (NACA RM L56G31)

WING LOADS AND LOAD DISTRIBUTIONS THROUGHOUT THE LIFT RANGE OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1956. 191p. diagrs., photo., tabs. (NACA RM H56G13)

ANALYSIS OF THE VERTICAL-TAIL LOADS MEASURED DURING A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE DOUGLAS X-3 RESEARCH AIRPLANE. William L. Marcy, Harriet J. Stephenson, and Thomas V. Cooney. November 1956. 32p. diagrs., photo., tab. (NACA RM H56H08)

LIFT-CURVE SLOPES DETERMINED IN FLIGHT ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. December 1956. 49p. diagrs., photos., tabs. (NACA RM L56E21a)

HORIZONTAL-TAIL PARAMETERS AS DETERMINED FROM FLIGHT-TEST TAIL LOADS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. January 1957. 42p. diagrs., photos., tabs. (NACA RM L56J02)

AN ANALOG COMPUTER STUDY OF SEVERAL STABILITY AUGMENTATION SCHEMES DESIGNED TO ALLEVIATE ROLL-INDUCED INSTABILITY. Brent Y. Creer. February 1957. 50p. diagrs., tab. (NACA RM A56H30)

AN ANALYSIS OF VERTICAL-TAIL LOADS MEASURED IN FLIGHT ON A SWEPT-WING BOMBER AIRPLANE. William A. McGowan and T. V. Cooney. May 1957. 53p. diagrs., photo., tabs. (NACA RM L57B19)

FLIGHT DATA PERTINENT TO BUFFETING AND MAXIMUM NORMAL-FORCE COEFFICIENT OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Thomas F. Baker, James A. Martin, and Betty J. Scott. November 1957. 41p. diagrs., photo., tabs. (NACA RM H57H09)

FLIGHT INVESTIGATION OF THE TRANSONIC LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Jack Fischel, Euclid C. Holleman, and Robert A. Tremant. December 1957. 61p. diagrs., photos., tab. (NACA RM H57I05)

ANALYSIS OF HORIZONTAL-TAIL LOADS IN PITCHING MANEUVERS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr. December 1957. 58p. diagrs., photo., tabs. (NACA TN 4191)

HIGH-SPEED LANDING LOADS MEASURED ON THE DOUGLAS X-3 RESEARCH AIRPLANE. William L. Marcy. February 1958. 24p. diagrs., photo., tabs. (NACA RM H57L06)

PRELIMINARY FLIGHT SURVEY OF FUSELAGE AND BOUNDARY-LAYER SOUND-PRESSURE LEVELS. Norman J. McLeod and Gareth H. Jordan. May 1958. 25p. diagrs., photos. (NACA RM H58B11)

AN EVALUATION OF EFFECTS OF FLEXIBILITY ON WING STRAINS IN ROUGH AIR FOR A LARGE SWEPT-WING AIRPLANE BY MEANS OF EXPERIMENTALLY DETERMINED FREQUENCY-RESPONSE FUNCTIONS WITH AN ASSESSMENT OF RANDOM-PROCESS TECHNIQUES EMPLOYED. Thomas L. Coleman, Harry Press, and May T. Meadows. July 1958. ii, 74p. diagrs., photo., tabs. (NACA TN 4291)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC AND STRUCTURAL DEFLECTION CHARACTERISTICS OF THE GOODYEAR INFLATOPLANE. Bennie W. Cocke, Jr. September 1958. 56p. diagrs., photos. (NACA RM L58E09)

(1.7.1.3) PERFORMANCE

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

LOITERING AND RANGE PERFORMANCE OF TURBOJET-POWERED AIRCRAFT DETERMINED BY OFF-DESIGN ENGINE CYCLE ANALYSIS. Stanley L. Koutz and Reece V. Hensley. February 1952. 45p. diagrs., tab. (NACA RM E51K29)

AN ANALYSIS OF THE EFFECT OF A CURVED RAMP ON THE TAKE-OFF PERFORMANCE OF CATAPULT-LAUNCHED AIRPLANES. Wilmer H. Reed, III. November 1952. 28p. diagrs., tab. (NACA RM L52I05)

MAXIMUM ALTITUDE AND MAXIMUM MACH NUMBER OBTAINED WITH THE MODIFIED DOUGLAS D-558-II RESEARCH AIRPLANE DURING DEMONSTRATION FLIGHTS. Theodore E. Dahlen. April 1953. 14p. diagrs., tabs. (NACA RM L53B24)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE OBTAINED IN EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Jack Nugent. August 1954. 20p. diagrs., photo., tab. (NACA RM L54F03)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 RESEARCH AIRPLANE OBTAINED DURING DEMONSTRATION FLIGHTS TO A MACH NUMBER OF 1.20. Donald R. Bellman and Edward D. Murphy. December 1954. 23p. diagrs., photos., tab. (NACA RM H54I17)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF STORE AND HORIZONTAL-TAIL LOADS AND SOME EFFECTS OF FUSELAGE-AFTERBODY MODIFICATIONS ON A SWEPT-WING FIGHTER AIRPLANE. Joseph M. Hallissy, Jr., and Louis Kudlacik. April 1956. 79p. diagrs., photos. (NACA RM L56A26)

MINIMUM WAVE DRAG FOR ARBITRARY ARRANGEMENTS OF WINGS AND BODIES. Robert T. Jones. 1957. ii, 6p. diagrs., photo. (NACA Rept. 1335. Supersedes TN 3530)

A COMPARATIVE ANALYSIS OF THE PERFORMANCE OF LONG-RANGE HYPERVELOCITY VEHICLES. Alfred J. Eggers, Jr., H. Julian Allen, and Stanford E. Neice. October 1957. (i), 66p. diagrs. (NACA TN 4046. Supersedes RM A54L10)

INVESTIGATION OF THE EFFECTS OF PROPELLER DIAMETER ON THE ABILITY OF A FLAPPED WING, WITH AND WITHOUT BOUNDARY-LAYER CONTROL, TO DEFLECT A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. December 1957. 47p. diagrs., photos. (NACA TN 4181)

EXPERIMENTAL INVESTIGATION OF THE LATERAL TRIM OF A WING-PROPELLER COMBINATION AT ANGLES OF ATTACK UP TO 90° WITH ALL PROPELLERS TURNING IN THE SAME DIRECTION. William A. Newsom, Jr. January 1958. 27p. diagrs. (NACA TN 4190)

EFFECTIVENESS OF BOUNDARY-LAYER CONTROL, OBTAINED BY BLOWING OVER A PLAIN REAR FLAP IN COMBINATION WITH A FORWARD SLOTTED FLAP, IN DEFLECTING A SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. February 1958. 32p. diagrs., photo. (NACA TN 4200)

WIND-TUNNEL INVESTIGATION OF THE HIGH-SUBSONIC STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF SEVERAL WING-BODY CONFIGURATIONS DESIGNED FOR HIGH LIFT-DRAG RATIOS AT A MACH NUMBER OF 1.4. Paul G. Fournier. July 1958. 42p. diagrs., photo., tab. (NACA TN 4340)

EFFECTS OF PROPELLER POSITION AND OVERLAP ON THE SLIPSTREAM DEFLECTION CHARACTERISTICS OF A WING-PROPELLER CONFIGURATION EQUIPPED WITH A SLIDING AND FOWLER FLAP. William C. Hayes, Jr., Richard E. Kuhn, and Irving R. Sherman. September 1958. 81p. diagrs., photos. (NACA TN 4404)

(1.7.2) MISSILES

EFFECT OF FUEL DENSITY AND HEATING VALUE ON RAM-JET AIRPLANE RANGE. Hugh M. Henneberry. February 1952. 56p. diagrs., tabs. (NACA RM E51I.21)

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2 x 10^6 TO 15 x 10^6. II - AERODYNAMIC LOAD DISTRIBUTIONS OF SERIES OF FIVE BODIES HAVING CONICAL NOSES AND CYLINDRICAL AFTERBODIES. John R. Jack and Lawrence I. Gould. May 1952. 28p. diagrs., photos., tabs. (NACA RM E52C10)

A PRESSURE-DISTRIBUTION INVESTIGATION OF A FINENESS-RATIO-12.2 PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT M = 1.59 AND ANGLES OF ATTACK UP TO 36°. Morton Cooper, John P. Gapcynski, and Lowell E. Hasel. October 1952. 89p. diagrs., photos., tabs. (NACA RM L52G14a)

EXPLORATORY ROCKET FLIGHT TESTS TO INVESTIGATE THE USE OF A FREELY SPINNING MONOPLANE TAIL FOR STABILIZING A BODY. Paul E. Purser and Joseph E. Stevens. October 1952. 25p. diagrs., photos., tab. (NACA RM L52I05a)

THEORETICAL INVESTIGATION OF THE PERFORMANCE OF PROPORTIONAL NAVIGATION GUIDANCE SYSTEMS - EFFECT OF MISSILE CONFIGURATION ON THE SPEED OF RESPONSE. Marvin Abramovitz. January 1953. 20p. diagrs., tabs. (NACA RM A52J22)

AERODYNAMIC CHARACTERISTICS OF TWO FLAT-BOTTOMED BODIES AT MACH NUMBER OF 3.12. John R. Jack and Barry Moskowitz. April 1954. 9p. diagrs. (NACA RM E53L11b)

DRAG DATA FOR 16-INCH-DIAMETER RAM-JET ENGINE WITH DOUBLE-CONE INLET IN FREE FLIGHT AT MACH NUMBERS FROM 0.7 TO 1.8. Merle L. Jones, Leonard Rabb, and Scott H. Simpkinson. October 1954. 52p. diagrs., photos. (NACA RM E54H02)

APPLICATION OF STATISTICAL THEORY TO BEAM-RIDER GUIDANCE IN THE PRESENCE OF NOISE. I - WIENER FILTER THEORY. Elwood C. Stewart. August 1955. 40p. diagrs., tabs. (NACA RM A55E11)

ANALYSIS OF A FLIGHT INVESTIGATION AT SUPERSONIC SPEEDS OF A SIMPLE HOMING SYSTEM. Robert A. Gardiner, Clarence L. Gillis, and G. B. Graves, Jr. January 1956. 55p. diagrs., photos. (NACA RM L55J28)

A COMPARATIVE ANALYSIS OF THE PERFORMANCE OF LONG-RANGE HYPERVELOCITY VEHICLES. Alfred J. Eggers, Jr., H. Julian Allen, and Stanford E. Neice. October 1957. (i), 66p. diagrs. (NACA TN 4046. Supersedes RM A54L10)

MOTION OF A BALLISTIC MISSILE ANGULARLY MISALINED WITH THE FLIGHT PATH UPON ENTERING THE ATMOSPHERE AND ITS EFFECT UPON AERODYNAMIC HEATING, AERODYNAMIC LOADS, AND MISS DISTANCE. H. Julian Allen. October 1957. 66p. diagrs., tabs. (NACA TN 4048. Supersedes RM A56F15)

DEVELOPMENT OF A PISTON-COMPRESSOR TYPE LIGHT-GAS GUN FOR THE LAUNCHING OF FREE-FLIGHT MODELS AT HIGH VELOCITY. A. C. Charters, B. Pat Denardo, and Vernon J. Rossow. November 1957. (i), 95p. diagrs., photos., tabs. (NACA TN 4143. Supersedes RM A55G11)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. December 1957. 29p. diagrs., photo., tabs. (NACA TN 4192. Supersedes RM L54C02)

SUMMARY OF FLUTTER EXPERIENCES AS A GUIDE TO THE PRELIMINARY DESIGN OF LIFTING SURFACES ON MISSILES. Dennis J. Martin. February 1958. 21p. diagrs. (NACA TN 4197. Supersedes RM L51J30)

AN ANALYSIS OF THE OPTIMIZATION OF A BEAM RIDER MISSILE SYSTEM. Marvin Shinbrot and Grace C. Carpenter. March 1958. 34p. diagrs. (NACA TN 4145)

APPLICATION OF STATISTICAL THEORY TO BEAM-RIDER GUIDANCE IN THE PRESENCE OF NOISE. II - MODIFIED WIENER FILTER THEORY. Elwood C. Stewart. June 1958. (i), 48p. diagrs., tabs. (NACA TN 4278. Supersedes RM A55E11a)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

DYNAMIC STABILITY OF VEHICLES TRAVERSING ASCENDING OR DESCENDING PATHS THROUGH THE ATMOSPHERE. Murray Tobak and H. Julian Allen. July 1958. (i), 35p. diagrs. (NACA TN 4275)

AN ESTIMATE OF THE FLUCTUATING SURFACE PRESSURES ENCOUNTERED IN THE REENTRY OF A BALLISTIC MISSILE. Edmund E. Callaghan. July 1958. 18p. diagrs. (NACA TN 4315)

TRANSIENT TEMPERATURE DISTRIBUTION IN A TWO-COMPONENT SEMI-INFINITE COMPOSITE SLAB OF ARBITRARY MATERIALS SUBJECTED TO AERODYNAMIC HEATING WITH A DISCONTINUOUS CHANGE IN EQUILIBRIUM TEMPERATURE OF HEAT-TRANSFER COEFFICIENT. Robert L. Trimpi and Robert A. Jones. September 1958. 83p. diagrs., tabs. (NACA TN 4308)

AN APPROACH TO THE PROBLEM OF ESTIMATING SEVERE AND REPEATED GUST LOADS FOR MISSILE OPERATIONS. Harry Press and Roy Steiner. September 1958. 44p. diagrs., tab. (NACA TN 4332)

RELATIVE MOTION IN THE TERMINAL PHASE OF INTERCEPTION OF A SATELLITE OR A BALLISTIC MISSILE. Richard A. Hord. September 1958. 33p. diagrs., tab. (NACA TN 4399)

(1.7.2.1) COMPONENTS IN COMBINATION

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.90 TO 1.95 OF AN ARROW WING IN COMBINATION WITH A SMALL BODY. Warren Gillespie, Jr., and Richard G. Arbic. January 12, 1951. 17p. diagrs., photos., tab. (NACA RM L50K28a)

A COMPARISON OF THE CALCULATED MAXIMUM MANEUVER-RESPONSE CHARACTERISTICS OF THREE AIR-TO-AIR, BEAM-RIDER, GUIDED MISSILES HAVING DIFFERENT LIFT RATIOS. Howard F. Matthews and Elwood C. Stewart. September 1951. 57p. diagrs., tabs. (NACA RM A51F18)

TESTS AT MACH NUMBER 1.62 OF A SERIES OF MISSILE CONFIGURATIONS HAVING TANDEM CRUCIFORM LIFTING SURFACES. Carl E. Grigsby. January 1952. 106p. diagrs., tabs. (NACA RM L51J15)

SPREADING OF EXHAUST JET FROM 16-INCH RAM JET AT MACH NUMBER 2.0. Fred Wilcox and Donald Pennington. August 1952. 14p. diagrs., photo., tab. (NACA RM E52F25)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH VERTICALLY MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Leonard J. Obery and Howard S. Krasnow. September 1952. 25p. diagrs. (NACA RM E52H08)

INFLUENCE OF FUSELAGE-MOUNTED ROCKET-BOOSTERS ON FLOW FIELD AT INLET AND ON DIFFUSER PERFORMANCE OF STRUT-MOUNTED ENGINE AT MACH NUMBERS OF 1.8 AND 2.0. George A. Wise and Leonard J. Obery. October 1952. 16p. diagrs., photos. (NACA RM E52I02)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

TOTAL-PRESSURE AND SCHLIEREN STUDIES OF THE WAKES OF VARIOUS CANARD CONTROL SURFACES MOUNTED ON A MISSILE BODY AT A MACH NUMBER OF 1.93. William B. Boatright. November 1952. 47p. photos., diagrs. (NACA RM L52I29)

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG OF 10 WING-BODY CONFIGURATIONS AT MACH NUMBERS FROM 0.8 TO 1.6. John D. Morrow and Robert L. Nelson. January 1953. 53p. diagrs., photo., tabs. (NACA RM L52D18a)

FLIGHT INVESTIGATION OF THE ZERO-LIFT DRAG OF TWO RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.00 TO 1.89. Clarence A. Brown, Jr., and Walter E. Bressette. March 1953. 24p. diagrs., photos. (NACA RM L52J24a)

SOME APPROXIMATE METHODS FOR ESTIMATING THE EFFECTS OF AEROELASTIC BENDING OF ROCKET-PROPELLED MODEL-BOOSTER COMBINATIONS. Richard G. Arbic, George White, and Warren Gillespie, Jr. March 1953. 40p. diagrs., photos., tabs. (NACA RM L53A08)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS OF VARIOUS COMBINATIONS OF COMPONENTS AT A MACH NUMBER OF 1.6. Clyde V. Hamilton, Cornelius Driver, and John R. Sevier, Jr. March 1953. 48p. diagrs., photo., tabs. (NACA RM L53A14)

INVESTIGATION OF THE DRAG OF BLUNT-NOSED BODIES OF REVOLUTION IN FREE FLIGHT AT MACH NUMBERS FROM 0.6 TO 2.3. Harvey A. Wallskog and Roger G. Hart. June 1953. 28p. diagrs., photos., tab. (NACA RM L53D14a)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

A METHOD FOR ESTIMATING THE ROLLING MOMENTS CAUSED BY WING-TAIL INTERFERENCE FOR MISSILE AT SUPERSONIC SPEEDS. Sherman Edwards and Katsumi Hikido. November 1953. 68p. diagrs., tabs. (NACA RM A53H18)

AN ANALYSIS OF PRESSURE STUDIES AND EXPERIMENTAL AND THEORETICAL DOWNWASH AND SIDEWASH BEHIND FIVE POINTED-TIP WINGS AT SUPERSONIC SPEEDS. William B. Boatright. April 1954. ii, 119p. diagrs., photos. (NACA RM L54B10)

AERODYNAMIC CHARACTERISTICS OF A CRUCIFORM-WING MISSILE WITH CANARD CONTROL SURFACES AND OF SOME VERY SMALL SPAN WING-BODY MISSILES AT A MACH NUMBER OF 1.41. M. Leroy Spearman and Ross B. Robinson. April 1954. 27p. diagrs., tabs. (NACA RM L54B11)

A WIND-TUNNEL INVESTIGATION OF THE USE OF SPOILERS FOR OBTAINING STATIC LONGITUDINAL STABILITY OF A CANARD-MISSILE MODEL IN REVERSE FLIGHT. Herman S. Fletcher. June 1954. 15p. diagrs., tab. (NACA RM L54E05)

WIND-TUNNEL INVESTIGATION AT A MACH NUMBER OF 2.01 OF THE AERODYNAMIC CHARACTERISTICS IN COMBINED PITCH AND SIDESLIP OF SOME CANARD-TYPE MISSILES HAVING CRUCIFORM WINGS AND CANARD SURFACES WITH 70° DELTA PLAN FORMS. M. Leroy Spearman and Cornelius Driver. August 1954. 121p. diagrs., tabs. (NACA RM L54F09)

AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 2.01 OF TWO CRUCIFORM MISSILE CONFIGURATIONS HAVING 70° DELTA WINGS WITH LENGTH-DIAMETER RATIOS OF 14.8 AND 17.7 WITH SEVERAL CANARD CONTROLS. M. Leroy Spearman and Ross B. Robinson. August 1954. 32p. diagrs., tabs. (NACA RM L54G20)

EFFECT ON TRANSONIC AND SUPERSONIC DRAG OF FUSELAGE GLOVES DESIGNED TO GIVE A SMOOTH OVERALL AREA DISTRIBUTION TO A SWEPT-WING–BODY COMBINATION. James Rudyard Hall. November 1954. 10p. diagrs., photos. (NACA RM L54H30)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A CANARD CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AND NACA 65A009 AIRFOIL SECTION. A. James Vitale and John C. McFall, Jr. November 1954. 24p. diagrs., photos., tab. (NACA RM L54I01)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

EXPERIMENTAL AERODYNAMIC FORCES AND MOMENTS AT LOW SPEED OF A MISSILE MODEL DURING SIMULATED LAUNCHING FROM THE MIDSEMISPAN LOCATION OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. February 1955. 36p. diagrs., photo., tabs. (NACA RM L54K11a)

A THEORETICAL ANALYSIS OF A SIMPLE AERODYNAMIC DEVICE TO IMPROVE THE LONGITUDINAL DAMPING OF A CRUCIFORM MISSILE CONFIGURATION AT SUPERSONIC SPEEDS. James E. Clements. October 1955. 36p. diagrs., tab. (NACA RM L55H31)

AN EVALUATION OF AN AEROMECHANICAL METHOD OF MINIMIZING SERVO-MISSILE TRANSFER-FUNCTION VARIATIONS WITH FLIGHT CONDITION. Martin L. Nason. April 1956. 41p. diagrs., tabs. (NACA RM L56A31)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS AT COMBINED ANGLES OF PITCH AND SIDESLIP FOR MACH NUMBER 2.01. Cornelius Driver and Clyde V. Hamilton. April 1956. 67p. diagrs., photo., tabs. (NACA RM L56B21)

A BRIEF SUMMARY OF EXPERIENCE IN BOOSTING AERODYNAMIC RESEARCH MODELS. Joseph G. Thibodaux, Jr. (Report is basis of talk presented at the thirtieth meeting of Bumblebee Aerodynamics Panel, Buffalo, New York, January 4, 1956.) July 1956. 21p. diagrs., photos. (NACA RM L56E28)

NONLIFTING WING-BODY COMBINATIONS WITH CERTAIN GEOMETRIC RESTRAINTS HAVING MINIMUM WAVE DRAG AT LOW SUPERSONIC SPEEDS. Harvard Lomax. 1957. ii, 11p. diagrs. (NACA Rept. 1297. Supersedes TN 3667)

LIFT AND CENTER OF PRESSURE OF WING-BODY-TAIL COMBINATIONS AT SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen, and George E. Kaattari. 1957. ii, 70p. diagrs., tabs. (NACA Rept. 1307)

CONTRIBUTION OF THE WING PANELS TO THE FORCES AND MOMENTS OF SUPERSONIC WING-BODY COMBINATIONS AT COMBINED ANGLES. J. Richard Spahr. January 1958. 62p. diagrs., photo., tabs. (NACA TN 4146)

(1.7.2.1.1) Wing-Body

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.90 TO 1.95 OF AN ARROW WING IN COMBINATION WITH A SMALL BODY. Warren Gillespie, Jr., and Richard G. Arbic. January 12, 1951. 17p. diagrs., photos., tab. (NACA RM L50K28a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 THICKNESS DISTRIBUTION. Charles F. Hall and John C. Heitmeyer. June 12, 1951. 24p. diagrs., photo., tab. (NACA RM A51E01)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION. John C. Heitmeyer and Robert B. Petersen. April 1952. 20p. diagrs., tabs. (NACA RM A52B08)

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG OF 10 WING-BODY CONFIGURATIONS AT MACH NUMBERS FROM 0.8 TO 1.6. John D. Morrow and Robert L. Nelson. January 1953. 53p. diagrs., photo., tabs. (NACA RM L52D18a)

WIND-TUNNEL INVESTIGATION OF THE VORTEX WAKE AND DOWNWASH FIELD BEHIND TRIANGULAR WINGS AND WING-BODY COMBINATIONS AT SUPERSONIC SPEEDS. J. Richard Spahr and Robert R. Dickey. June 1953. 92p. diagrs., photos., tabs. (NACA RM A53D10)

LIFT, DRAG, AND HINGE MOMENTS AT SUPERSONIC SPEEDS OF AN ALL-MOVABLE TRIANGULAR WING AND BODY COMBINATION. William C. Drake. September 1953. 38p. diagrs., photos., tabs. (NACA RM A53F22)

A METHOD FOR ESTIMATING THE ROLLING MOMENTS CAUSED BY WING-TAIL INTERFERENCE FOR MISSILE AT SUPERSONIC SPEEDS. Sherman Edwards and Katsumi Hikido. November 1953. 68p. diagrs., tabs. (NACA RM A53H18)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54F12)

AN EXPERIMENTAL INVESTIGATION OF REDUCTION IN TRANSONIC DRAG RISE AT ZERO LIFT BY THE ADDITION OF VOLUME TO THE FUSELAGE OF A WING-BODY-TAIL CONFIGURATION AND A COMPARISON WITH THEORY. George H. Holdaway. August 1954. 35p. diagrs., photos., tabs. (NACA RM A54F22)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

EXPERIMENTAL AERODYNAMIC FORCES AND MOMENTS AT LOW SPEED OF A MISSILE MODEL DURING SIMULATED LAUNCHING FROM THE MIDSEMISPAN LOCATION OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. February 1955. 36p. diagrs., photo., tabs. (NACA RM L54K11a)

FLUTTER EXPERIENCES WITH THIN POINTED-TIP WINGS DURING FLIGHT TESTS OF ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.95. Harvey A. Wallskog. April 1955. 32p. diagrs., photos., tabs. (NACA RM L55A14)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.62. Donald E. Coletti. May 1955. 49p. diagrs., photo., tabs. (NACA RM L55B25)

ADDITIONAL COMPARISONS BETWEEN COMPUTED AND MEASURED TRANSONIC DRAG-RISE COEFFICIENTS AT ZERO LIFT FOR WING-BODY-TAIL CONFIGURATIONS. George H. Holdaway. August 1955. 43p. diagrs., photo., tabs. (NACA RM A55F06)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR-WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.94. Donald E. Coletti. December 1955. 52p. diagrs., photo., tabs. (NACA RM L55I14)

AERODYNAMICS OF BODIES, WINGS, AND WING-BODY COMBINATIONS AT HIGH ANGLES OF ATTACK AND SUPERSONIC SPEEDS. Jack N. Nielsen, J. Richard Spahr, and Frank Centolanzi. February 1956. 12p. diagrs. (NACA RM A55L13c)

THE EFFECT OF EXTERNAL STIFFENING RIBS ON THE ROLLING POWER OF AILERONS ON A SWEPT WING. Emily W. Stephens. October 1956. 15p. diagrs., photo., tab. (NACA RM L56D19)

SOME CONSIDERATIONS OF THE INFLUENCE OF BODY CROSS-SECTIONAL SHAPE ON THE LIFTING EFFICIENCY OF WING-BODY COMBINATIONS AT SUPERSONIC SPEEDS. E. B. Klunker and Keith C. Harder. October 1956. 20p. diagrs. (NACA RM L56H30)

A THEORETICAL STUDY OF THE AERODYNAMICS OF SLENDER CRUCIFORM-WING ARRANGEMENTS AND THEIR WAKES. John R. Spreiter and Alvin H. Sacks. 1957. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1296. Supersedes TN 3528)

ELLIPTIC CONES ALONE AND WITH WINGS AT SUPERSONIC SPEEDS. Leland H. Jorgensen. October 1957. 55p. diagrs., photos. (NACA TN 4045)

A BODY MODIFICATION TO REDUCE DRAG DUE TO WEDGE ANGLE OF WING WITH UNSWEPT TRAILING EDGE. William C. Pitts and Jack N. Nielsen. July 1958. 13p. (NACA TN 4277)

SUPERSONIC WAVE INTERFERENCE AFFECTING STABILITY. Eugene S. Love. September 1958. 19p. diagrs., photos. (NACA TN 4358. Supersedes RM L55L14a)

COMPARISON OF SHOCK-EXPANSION THEORY WITH EXPERIMENT FOR THE LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF TWO WING-BODY COMBINATIONS AT M = 5.0. Raymond C. Savin. September 1958. 13p. diagrs. (NACA TN 4385)

(1.7.2.1.2) Tail-Body

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.90 TO 1.95 OF AN ARROW WING IN COMBINATION WITH A SMALL BODY. Warren Gillespie, Jr., and Richard G. Arbic. January 12, 1951. 17p. diagrs., photos., tab. (NACA RM L50K28a)

TRANSONIC FREE-FLIGHT DRAG RESULTS OF FULL-SCALE MODELS OF 16-INCH-DIAMETER RAM-JET ENGINES. Wesley E. Messing and Loren W. Acker. April 1952. 17p. diagrs. (NACA RM E52B19)

EXPERIMENTAL INVESTIGATION OF THE STATIC AERODYNAMIC AND DYNAMIC DAMPING-IN-ROLL CHARACTERISTICS OF AN 8-CM AIRCRAFT ROCKET WITH SOLID AND SLOTTED FINS. Robert S. Chubb. June 1952. ii, 43p. diagrs., photo. (NACA RM A52C04)

TRANSONIC FREE-FLIGHT INVESTIGATION OF THE TOTAL DRAG AND OF THE COMPONENT DRAGS (COWL PRESSURE, ADDITIVE, BASE, FRICTION, AND INTERNAL) ENCOUNTERED BY A 16-INCH-DIAMETER RAM-JET ENGINE FOR MACH NUMBERS FROM 0.80 TO 1.43. Wesley E. Messing and Leonard Rabb. August 1952. 34p. diagrs., photos. (NACA RM E52F02)

EXPLORATORY ROCKET FLIGHT TESTS TO INVESTIGATE THE USE OF A FREELY SPINNING MONOPLANE TAIL FOR STABILIZING A BODY. Paul E. Purser and Joseph E. Stevens. October 1952. 25p. diagrs., photos., tab. (NACA RM L52I05a)

LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG OF 10 WING-BODY CONFIGURATIONS AT MACH NUMBERS FROM 0.8 TO 1.6. John D. Morrow and Robert L. Nelson. January 1953. 53p. diagrs., photo., tabs. (NACA RM L52D18a)

ROCKET-POWERED MODEL INVESTIGATION OF LIFT, DRAG, AND STABILITY OF A BODY-TAIL CONFIGURATION AT MACH NUMBERS FROM 0.8 TO 2.3 AND ANGLES OF ATTACK BETWEEN ±6.5°. Warren Gillespie, Jr., and Albert E. Dietz. April 1954. 42p. diagrs., photos., tabs. (NACA RM L54C04)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

EXPERIMENTAL AERODYNAMIC FORCES AND MOMENTS AT LOW SPEED OF A MISSILE MODEL DURING SIMULATED LAUNCHING FROM THE MIDSEMISPAN LOCATION OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. February 1955. 36p. diagrs., photo., tabs. (NACA RM L54K11a)

PRELIMINARY FREE-FLIGHT STUDY OF THE DRAG AND STABILITY OF A SERIES OF SHORT-SPAN MISSILES AT MACH NUMBERS FROM 0.9 TO 1.3. James Rudyard Hall. February 1956. 14p. diagrs., photo. (NACA RM L55J13)

AN EXPERIMENTAL STUDY OF THE ZERO-ANGLE-OF-ATTACK TRANSONIC DRAG ASSOCIATED WITH THE VERTICAL POSITION OF A HORIZONTAL TAIL AT ZERO INCIDENCE. Robert R. Howell. October 1956. 21p. diagrs., photos., tab. (NACA RM L56H07)

(1.7.2.1.3)
Jet Interference

INVESTIGATION AT MACH NUMBER 1.91 OF SIDE AND BASE PRESSURE DISTRIBUTIONS OVER CONICAL BOATTAILS WITHOUT AND WITH JET FLOW ISSUING FROM BASE. Edgar M. Cortright, Jr., and Albert H. Schroeder. September 1951. 59p. diagrs., photos. (NACA RM E51F26)

SPREADING OF EXHAUST JET FROM 16-INCH RAM JET AT MACH NUMBER 2.0. Fred Wilcox and Donald Pennington. August 1952. 14p. diagrs., photo., tab. (NACA RM E52F25)

JET EFFECTS ON FLOW OVER AFTERBODIES IN SUPERSONIC STREAM. Edgar M. Cortright, Jr., and Fred D. Kochendorfer. November 1953. 31p. diagrs., photos. (NACA RM E53H25)

EFFECT OF JET-NOZZLE-EXPANSION RATIO ON DRAG OF PARABOLIC AFTERBODIES. Gerald W. Englert, Donald J. Vargo, and Robert W. Cubbison. April 1954. 26p. diagrs., photos. (NACA RM E54B12)

ROCKET-POWERED MODEL INVESTIGATION OF LIFT, DRAG, AND STABILITY OF A BODY-TAIL CONFIGURATION AT MACH NUMBERS FROM 0.8 TO 2.3 AND ANGLES OF ATTACK BETWEEN ±6.5°. Warren Gillespie, Jr., and Albert E. Dietz. April 1954. 42p. diagrs., photos., tabs. (NACA RM L54C04)

EXPERIMENTAL EFFECTS OF PROPULSIVE JETS AND AFTERBODY CONFIGURATIONS ON THE ZERO-LIFT DRAG OF BODIES OF REVOLUTION AT A MACH NUMBER OF 1.59. Carlos A. de Moraes and Albin M. Nowitzky. April 1954. 32p. diagrs., photos. (NACA RM L54C16)

PUMPING AND DRAG CHARACTERISTICS OF AN AIRCRAFT EJECTOR AT SUBSONIC AND SUPERSONIC SPEEDS. Gerald C. Gorton. June 1954. 19p. diagrs. (NACA RM E54D06)

TRANSONIC FLIGHT TEST OF A ROCKET-POWERED MODEL TO DETERMINE PROPULSIVE JET INFLUENCE ON THE CONFIGURATION DRAG. Carlos A. deMoraes. June 1954. 16p. diagrs., photo. (NACA RM L54D27)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE EFFECT OF JET MACH NUMBER AND DIVERGENCE ANGLE OF THE NOZZLE UPON THE PRESSURE OF THE BASE ANNULUS OF A BODY OF REVOLUTION. August F. Bromm, Jr., and Robert M. O'Donnell. December 1954. 24p. diagrs., photos. (NACA RM L54I16)

JET EFFECTS ON LONGITUDINAL TRIM OF AN AIRPLANE CONFIGURATION MEASURED AT MACH NUMBERS BETWEEN 1.2 AND 1.8. Robert F. Peck. January 1955. 17p. diagrs., photos. (NACA RM L54J29a)

SOME STUDIES OF AXISYMMETRIC FREE JETS EXHAUSTING FROM SONIC AND SUPERSONIC NOZZLES INTO STILL AIR AND INTO SUPERSONIC STREAMS. Eugene S. Love and Carl E. Grigsby. May 1955. ii, 178p. diagrs., photos., tabs. (NACA RM L54L31)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF SIMULATED SONIC TURBOJET EXHAUST ON THE DRAG OF A BOATTAIL BODY WITH VARIOUS JET SIZES FROM MACH NUMBER 0.87 TO 1.50. Ralph A. Falanga. August 1955. 23p. diagrs., photos., tab. (NACA RM L55F09a)

FREE-FLIGHT TESTS TO DETERMINE THE POWER-ON AND POWER-OFF PRESSURE DISTRIBUTION AND DRAG OF THE NACA RM-10 RESEARCH VEHICLE AT LARGE REYNOLDS NUMBERS BETWEEN MACH NUMBERS 0.8 AND 3.0. Sherwood Hoffman. September 1955. 55p. diagrs., photos., 3 tabs. (NACA RM L55H02)

INITIAL INCLINATION OF THE MIXING BOUNDARY SEPARATING AN EXHAUSTING SUPERSONIC JET FROM A SUPERSONIC AMBIENT STREAM. Eugene S. Love. January 1956. 30p. diagrs. (NACA RM L55J14)

RESULTS OF ROCKET MODEL TEST OF AN AIRPLANE CONFIGURATION HAVING AN ARROW WING AND SLENDER FLAT-SIDED FUSELAGE. LIFT, DRAG, LONGITUDINAL STABILITY, LATERAL FORCE, AND JET EFFECTS AT MACH NUMBERS BETWEEN 1.0 AND 2.3. Robert F. Peck. February 1956. 26p. diagrs., photo. (NACA RM L55L29)

A FREE-FLIGHT INVESTIGATION OF THE EFFECTS OF A SONIC JET ON THE TOTAL-DRAG AND BASE-PRESSURE COEFFICIENTS OF A BOATTAIL BODY OF REVOLUTION FROM MACH NUMBER 0.83 TO 1.70. Ralph A. Falanga. March 1956. 18p. diagrs., photo., tab. (NACA RM L55L21)

INTERACTION OF AN EXHAUST JET AND ELEMENTARY CONTOURED SURFACES LOCATED IN A SUPERSONIC AIR STREAM. Joseph F. Wasserbauer and Gerald W. Englert. April 1956. 20p. diagrs., photo. (NACA RM E56A16)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A HEATED PROPULSIVE JET ON THE PRESSURE DISTRIBUTION ALONG A FUSELAGE OVERHANG. Elden S. Cornette and Donald H. Ward. April 1956. 42p. diagrs., photos., tab. (NACA RM L56A27)

A BRIEF SUMMARY OF EXPERIENCE IN BOOSTING AERODYNAMIC RESEARCH MODELS. Joseph G. Thibodaux, Jr. (Report is basis of talk presented at the thirtieth meeting of Bumblebee Aerodynamics Panel, Buffalo, New York, January 4, 1956.) July 1956. 21p. diagrs., photos. (NACA RM L56E28)

BOUNDARIES OF SUPERSONIC AXISYMMETRIC FREE JETS. Eugene S. Love, Mildred J. Woodling, and Louise P. Lee. October 1956. 98p. diagrs. (NACA RM L56G18)

SHAPE OF INITIAL PORTION OF BOUNDARY OF SUPERSONIC AXISYMMETRIC FREE JETS AT LARGE JET PRESSURE RATIOS. Eugene S. Love and Louise P. Lee. January 1958. 29p. diagrs. (NACA TN 4195)

SUPERSONIC WAVE INTERFERENCE AFFECTING STABILITY. Eugene S. Love. September 1958. 19p. diagrs., photos. (NACA TN 4358. Supersedes RM L55L14a)

(1.7.2.1.4) Wing-Tail-Body

AN INVESTIGATION AT MACH NUMBERS OF 1.62 AND 1.93 OF THE LIFT EFFECTIVENESS AND INTEGRATED DOWNWASH CHARACTERISTICS OF SEVERAL IN-LINE MISSILE CONFIGURATIONS HAVING EQUAL-SPAN WINGS AND TAILS. Carl E. Grigsby. April 1952. 75p. diagrs., tabs. (NACA RM L52A02)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH VERTICALLY MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Leonard J. Obery and Howard S. Krasnow. September 1952. 25p. diagrs. (NACA RM E52H08)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

SOME APPROXIMATE METHODS FOR ESTIMATING THE EFFECTS OF AEROELASTIC BENDING OF ROCKET-PROPELLED MODEL-BOOSTER COMBINATIONS. Richard G. Arbic, George White, and Warren Gillespie, Jr. March 1953. 40p. diagrs., photos., tabs. (NACA RM L53A06)

COMPARISON OF THEORETICAL AND EXPERIMENTAL ZERO-LIFT DRAG-RISE CHARACTERISTICS OF WING-BODY-TAIL COMBINATIONS NEAR THE SPEED OF SOUND. George H. Holdaway. October 1953. 27p. diagrs., tab. (NACA RM A53H17)

A FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.67 TO 1.81 OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE CONFIGURATION HAVING AN ALL-MOVABLE TAIL. Martin T. Moul and Hal T. Baber, Jr. October 1953. 43p. diagrs., photo. (NACA RM L53G29)

A METHOD FOR ESTIMATING THE ROLLING MOMENTS CAUSED BY WING-TAIL INTERFERENCE FOR MISSILE AT SUPERSONIC SPEEDS. Sherman Edwards and Katsumi Hikido. November 1953. 68p. diagrs., tabs. (NACA RM A53H18)

A WIND-TUNNEL INVESTIGATION OF THE USE OF SPOILERS FOR OBTAINING STATIC LONGITUDINAL STABILITY OF A CANARD-MISSILE MODEL IN REVERSE FLIGHT. Herman S. Fletcher. June 1954. 15p. diagrs., tab. (NACA RM L54E05)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

AN EXPERIMENTAL INVESTIGATION OF REDUCTION IN TRANSONIC DRAG RISE AT ZERO LIFT BY THE ADDITION OF VOLUME TO THE FUSELAGE OF A WING-BODY-TAIL CONFIGURATION AND A COMPARISON WITH THEORY. George H. Holdaway. August 1954. 35p. diagrs., photos., tabs. (NACA RM A54F22)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS AND SMALL ANGLES OF ATTACK OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 3 WITH AN NACA 64A006 AIRFOIL SECTION. George H. Holdaway. January 1955. 32p. diagrs., photo., tab. (NACA RM A54I17)

EXPERIMENTAL AERODYNAMIC FORCES AND MOMENTS AT LOW SPEED OF A MISSILE MODEL DURING SIMULATED LAUNCHING FROM THE MIDSEMISPAN LOCATION OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. February 1955. 36p. diagrs., photo., tabs. (NACA RM L54K11a)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Loren G. Bright. March 1955. 40p. diagrs., photos., tabs. (NACA RM A54L27)

ADDITIONAL COMPARISONS BETWEEN COMPUTED AND MEASURED TRANSONIC DRAG-RISE COEFFICIENTS AT ZERO LIFT FOR WING-BODY-TAIL CONFIGURATIONS. George H. Holdaway. August 1955. 43p. diagrs., photo., tabs. (NACA RM A55F06)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 2. Maurice D. White. September 1955. 39p. diagrs., photo., tabs. (NACA RM A55F21)

DETERMINATION OF VORTEX PATHS BY SERIES EXPANSION TECHNIQUE WITH APPLICATION TO CRUCIFORM WINGS. Alberta Y. Alksne. 1957. iii, 13p. diagrs., photos. (NACA Rept. 1311. Supersedes TN 3670)

(1.7.2.2) SPECIFIC MISSILES

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. I - COMBUSTION AND OPERATIONAL PERFORMANCE OF FOUR COMBUSTION-CHAMBER CONFIGURATIONS. W. L. Jones, T. B. Shillito, and J. G. Henzel, Jr. August 23, 1950. 53p. diagrs., photos. (NACA RM E50F16)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. II - EFFECTS OF GUTTER WIDTH AND BLOCKED AREA ON OPERATING RANGE AND COMBUSTION EFFICIENCY. T. B. Shillito, W. L. Jones, and R. W. Kahn. November 6, 1950. 58p. diagrs. (NACA RM E50H21)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. III - COMBUSTION AND OPERATIONAL PERFORMANCE OF THREE FLAME HOLDERS WITH A CENTER PILOT BURNER. Thomas B. Shillito, George G. Younger, and James G. Henzel, Jr. February 6, 1951. 30p. diagrs. (NACA RM E50J20)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. IV - EFFECT OF INLET-AIR TEMPERATURE, COMBUSTION-CHAMBER-INLET MACH NUMBER, AND FUEL VOLATILITY ON COMBUSTION PERFORMANCE. Robert W. Kahn, Shigeo Nakanishi, and James L. Harp, Jr. July 1951. 27p. diagrs. (NACA RM E51D11)

THE EFFECT OF VARIOUS MISSILE CHARACTERISTICS ON AIRFRAME FREQUENCY RESPONSE. Howard F. Matthews and Walter E. McNeill. January 1952. 16p. diagrs. (NACA RM A51L17a)

PRELIMINARY FREE-FLIGHT INVESTIGATION OF THE ZERO-LIFT DRAG PENALTIES OF SEVERAL MISSILE NOSE SHAPES FOR INFRARED SEEKING DEVICES. Robert O. Piland. December 1952. 22p. diagrs., photos. (NACA RM L52F23)

INVESTIGATION OF THE DRAG OF BLUNT-NOSED BODIES OF REVOLUTION IN FREE FLIGHT AT MACH NUMBERS FROM 0.6 TO 2.3. Harvey A. Wallskog and Roger G. Hart. June 1953. 28p. diagrs., photos., tab. (NACA RM L53D14a)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE HINGE-MOMENT AND NORMAL-FORCE PROPERTIES OF A FULL-SPAN, CONSTANT-CHORD, PARTIALLY BALANCED TRAILING-EDGE CONTROL ON A 60° CLIPPED DELTA WING BETWEEN MACH NUMBERS OF 0.50 AND 1.26. C. William Martz and John W. Goslee. October 1953. 33p. diagrs., photos., tab. (NACA RM L53I04)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF SEVERAL SEEKER-NOSE CONFIGURATIONS ON THE LONGITUDINAL CHARACTERISTICS OF A CANARD-TYPE MISSILE AT A MACH NUMBER OF 1.60. A. Warner Robins. October 1953. 25p. diagrs., photos., tabs. (NACA RM L53I18)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

ZERO-LIFT DRAG OF SEVERAL CONICAL AND BLUNT NOSE SHAPES OBTAINED IN FREE FLIGHT AT MACH NUMBERS OF 0.7 TO 1.3. Robert O. Piland and Leonard W. Putland. March 1954. 14p. diagrs., photos., tab. (NACA RM L54A27)

AERODYNAMIC CHARACTERISTICS OF A CRUCIFORM-WING MISSILE WITH CANARD CONTROL SURFACES AND OF SOME VERY SMALL SPAN WING-BODY MISSILES AT A MACH NUMBER OF 1.41. M. Leroy Spearman and Ross B. Robinson. April 1954. 27p. diagrs., tabs. (NACA RM L54B11)

A WIND-TUNNEL INVESTIGATION OF THE USE OF SPOILERS FOR OBTAINING STATIC LONGITUDINAL STABILITY OF A CANARD-MISSILE MODEL IN REVERSE FLIGHT. Herman S. Fletcher. June 1954. 15p. diagrs., tab. (NACA RM L54E05)

WIND-TUNNEL INVESTIGATION AT A MACH NUMBER OF 2.01 OF THE AERODYNAMIC CHARACTERISTICS IN COMBINED PITCH AND SIDESLIP OF SOME CANARD-TYPE MISSILES HAVING CRUCIFORM WINGS AND CANARD SURFACES WITH 70° DELTA PLAN FORMS. M. Leroy Spearman and Cornelius Driver. August 1954. 121p. diagrs., tabs. (NACA RM L54F09)

FLIGHT MEASUREMENTS OF AVERAGE SKIN-FRICTION COEFFICIENTS ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.0 TO 3.7. J. Dan Loposer and Charles B. Rumsey. August 1954. 32p. diagrs., photos. (NACA RM L54G14)

AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 2.01 OF TWO CRUCIFORM MISSILE CONFIGURATIONS HAVING 70° DELTA WINGS WITH LENGTH-DIAMETER RATIOS OF 14.8 AND 17.7 WITH SEVERAL CANARD CONTROLS. M. Leroy Spearman and Ross B. Robinson. August 1954. 32p. diagrs., tabs. (NACA RM L54G20)

FREE-FLIGHT TESTS TO DETERMINE THE POWER-ON AND POWER-OFF PRESSURE DISTRIBUTION AND DRAG OF THE NACA RM-10 RESEARCH VEHICLE AT LARGE REYNOLDS NUMBERS BETWEEN MACH NUMBERS 0.8 AND 3.0. Sherwood Hoffman. September 1955. 55p. diagrs., photos., 3 tabs. (NACA RM L55H02)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS AT COMBINED ANGLES OF PITCH AND SIDESLIP FOR MACH NUMBER 2.01. Cornelius Driver and Clyde V. Hamilton. April 1956. 67p. diagrs., photo., tabs. (NACA RM L56B21)

FLIGHT MEASUREMENTS OF BOUNDARY-LAYER TEMPERATURE PROFILES ON A BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.2 TO 3.5. Andrew G. Swanson, James J. Buglia, and Leo T. Chauvin. July 1957. 40p. diagrs., photos. (NACA TN 4061)

(1.7.3)
ROTATING-WING AIRCRAFT

(1.7.3.1)
AUTOGIROS

FULL-SCALE WIND-TUNNEL TESTS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF THE XV-1 CONVERTIPLANE IN THE AUTOROTATING FLIGHT RANGE. David H. Hickey. May 1956. 64p. diagrs., photos., tabs. (NACA RM A55K21a)

(1.7.3.2)
HELICOPTERS

ANALYSIS OF A PRESSURE-JET POWER PLANT FOR A HELICOPTER. Richard P. Krebs and William S. Miller, Jr. March 1955. 56p. diagrs. (NACA RM E54L23)

FULL-SCALE WIND-TUNNEL TESTS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF THE XV-1 CONVERTIPLANE IN THE AUTOROTATING FLIGHT RANGE. David H. Hickey. May 1956. 64p. diagrs., photos., tabs. (NACA RM A55K21a)

EFFECT OF AMBIENT CONDITIONS ON THE PERFORMANCE OF A PRESSURE-JET POWERPLANT FOR A HELICOPTER. Richard P. Krebs. June 1956. 49p. diagrs. (NACA RM E56B21)

EXPLORATORY INVESTIGATION OF A HELICOPTER PRESSURE-JET SYSTEM ON THE LANGLEY HELICOPTER TEST TOWER. Robert A. Makofski and James P. Shivers. July 1956. 38p. diagrs., photo. (NACA RM L56B17)

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE IN FORWARD FLIGHT. John P. Rabbott, Jr., and Gary B. Churchill. October 1956. 65p. diagrs., photos., tabs. (NACA RM L56I07)

INDUCED VELOCITIES NEAR A LIFTING ROTOR WITH NONUNIFORM DISK LOADING. Harry H. Heyson and S. Katzoff. 1957. iii, 88p. diagrs., photos., tab. (NACA Rept. 1319. Supersedes TN 3690; TN 3691)

FLIGHT AND ANALYTICAL METHODS FOR DETERMINING THE COUPLED VIBRATION RESPONSE OF TANDEM HELICOPTERS. John E. Yeates, Jr., George W. Brooks, and John C. Houbolt. 1957. iv, 31p. diagrs., photo., tabs. (NACA Rept. 1326. Supersedes TN 3852; TN 3849)

COMPRESSIBILITY EFFECTS ON A HOVERING HELICOPTER ROTOR HAVING AN NACA 0018 ROOT AIRFOIL TAPERING TO AN NACA 0012 TIP AIRFOIL. Robert D. Powell, Jr. September 1957. 25p. diagrs. (NACA RM L57F26)

FLIGHT INVESTIGATION OF EFFECTS OF ATMOSPHERIC TURBULENCE AND MODERATE MANEUVERS ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. February 1958. 34p. diagrs., photo., tab. (NACA TN 4203)

ANALYSIS OF HARMONIC FORCES PRODUCED AT HUB BY IMBALANCES IN HELICOPTER ROTOR BLADES. M. Morduchow and A. Muzyka, Polytechnic Institute of Brooklyn. April 1958. 37p. diagrs. (NACA TN 4226)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF FLAT PLATES AND CYLINDERS IN THE SLIPSTREAM OF A HOVERING ROTOR. John W. McKee and Rodger L. Naeseth. April 1958. 42p. diagrs., photos., tab. (NACA TN 4239)

FLIGHT INVESTIGATION OF EFFECTS OF RETREATING-BLADE STALL ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. May 1958. 23p. diagrs., photo. (NACA TN 4254)

NORMAL COMPONENT OF INDUCED VELOCITY FOR ENTIRE FIELD OF A UNIFORMLY LOADED LIFTING ROTOR WITH HIGHLY SWEPT WAKE AS DETERMINED BY ELECTROMAGNETIC ANALOG. Walter Castles, Jr., Howard L. Durham, Jr., and Jirair Kevorkian, Georgia Institute of Technology. June 1958. 33p. diagrs., photos., tabs. (NACA TN 4238)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF SPOILER LOCATION, SPOILER SIZE, AND FUSELAGE NOSE SHAPE ON DIRECTIONAL CHARACTERISTICS OF A MODEL OF A TANDEM-ROTOR HELICOPTER FUSELAGE. James L. Williams. July 1958. 44p. diagrs., photos., tab. (NACA TN 4305)

FLOW INDUCED BY A ROTOR IN POWER-ON VERTICAL DESCENT. Walter Castles, Jr., Georgia Institute of Technology. July 1958. 25p. diagrs., tabs. (NACA TN 4330)

LOW TIP MACH NUMBER STALL CHARACTERISTICS AND HIGH TIP MACH NUMBER COMPRESSIBILITY EFFECTS ON A HELICOPTER ROTOR HAVING AN NACA 0009 TIP AIRFOIL SECTION. Robert D. Powell, Jr., and Paul J. Carpenter. July 1958. 28p. diagrs. (NACA TN 4355)

MATRIX METHOD FOR OBTAINING SPANWISE MOMENTS AND DEFLECTIONS OF TORSIONALLY RIGID ROTOR BLADES WITH ARBITRARY LOADINGS. Alton P. Mayo. August 1958. 51p. diagrs., tabs. (NACA TN 4304)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. September 1958. 68p. diagrs., photo., tabs. (NACA TN 4005. Supersedes RM L53D24)

EFFECTS OF COMPRESSIBILITY ON ROTOR HOVERING PERFORMANCE AND SYNTHESIZED BLADE-SECTION CHARACTERISTICS DERIVED FROM MEASURED ROTOR PERFORMANCE OF BLADES HAVING NACA 0015 AIRFOIL TIP SECTIONS. James P. Shivers and Paul J. Carpenter. September 1958. 28p. diagrs. (NACA TN 4356)

LIFT AND PROFILE-DRAG CHARACTERISTICS OF AN NACA 0012 AIRFOIL SECTION AS DERIVED FROM MEASURED HELICOPTER-ROTOR HOVERING PERFORMANCE. Paul J. Carpenter. September 1958. 28p. diagrs., photo. (NACA TN 4357)

WIND-TUNNEL TESTS OF A FULL-SCALE HELICOPTER ROTOR WITH SYMMETRICAL AND WITH CAMBERED BLADE SECTIONS AT ADVANCE RATIOS FROM 0.3 TO 0.4. John L. McCloud III and George B. McCullough. September 1958. 33p. diagrs., photos., tab. (NACA TN 4367)

SOME STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN OVERLAPPED-TYPE TANDEM-ROTOR HELICOPTER AT LOW AIRSPEEDS. Robert J. Tapscott. September 1958. 27p. diagrs., tabs. (NACA TN 4393)

FLIGHT MEASUREMENTS OF THE VIBRATION EXPERIENCED BY A TANDEM HELICOPTER IN TRANSITION, VORTEX-RING STATE, LANDING APPROACH, AND YAWED FLIGHT. John E. Yeates. September 1958. 20p. diagrs. (NACA TN 4409)

(1.7.5)

AIRSHIPS

A FLIGHT EVALUATION AND ANALYSIS OF THE EFFECT OF ICING CONDITIONS ON THE ZPG-2 AIRSHIP. William Lewis and Porter J. Perkins, Jr. April 1958. 66p. diagrs., photos., tab. (NACA TN 4220)

(1.8)
Stability and Control

WIND-TUNNEL TESTS OF A 1/12-SCALE MODEL OF THE X-3 AIRPLANE AT SUBSONIC AND SUPERSONIC SPEEDS. Robert N. Olson and Robert S. Chubb. September 14, 1951. 111p. diagrs., photo., tabs. (NACA RM A51F12)

HANDLING QUALITIES OF HIGH-SPEED AIRPLANES. W. C. Williams and A. S. Crossfield. January 1952. 17p. diagrs. (NACA RM L52A08)

MEASUREMENTS OBTAINED DURING THE GLIDE-FLIGHT PROGRAM OF THE BELL X-2 RESEARCH AIRPLANE. Richard E. Day. July 30, 1953. 27p. diagrs., photos., tabs. (NACA RM L53G03a)

A METHOD FOR INCREASING THE EFFECTIVENESS OF STABILIZING SURFACES AT HIGH SUPERSONIC MACH NUMBERS. Charles H. McLellan. August 1954. 14p. diagrs. (NACA RM L54F21)

RESULTS OF MEASUREMENTS MADE DURING THE APPROACH AND LANDING OF SEVEN HIGH-SPEED RESEARCH AIRPLANES. Wendell H. Stillwell. February 1955. 25p. diagrs., tab. (NACA RM H54K24)

SOME STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN OVERLAPPED-TYPE TANDEM-ROTOR HELICOPTER AT LOW AIRSPEEDS. Robert J. Tapscott. September 1958. 27p. diagrs., tabs. (NACA TN 4393)

(1.8.1)
STABILITY

EXPLORATORY ROCKET FLIGHT TESTS TO INVESTIGATE THE USE OF A FREELY SPINNING MONOPLANE TAIL FOR STABILIZING A BODY. Paul E. Purser and Joseph E. Stevens. October 1952. 25p. diagrs., photos., tab. (NACA RM L52I05a)

THE EFFECT OF INITIAL RATE OF SUBSONIC DIFFUSION ON THE STABLE SUBCRITICAL MASS-FLOW RANGE OF A CONICAL SHOCK DIFFUSER. J. C. Nettles. July 1953. 23p. diagrs. (NACA RM E53E26)

SUPERSONIC WAVE INTERFERENCE AFFECTING STABILITY. Eugene S. Love. September 1958. 19p. diagrs., photos. (NACA TN 4358. Supersedes RM L55L14a)

(1.8.1.1)
STATIC

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

FREE-FLIGHT DETERMINATION OF FORCE AND STABILITY CHARACTERISTICS OF AN INCLINED BODY OF FINENESS RATIO 16.9 AT A MACH NUMBER OF 1.74. Warren Gillespie, Jr. November 1954. 17p. diagrs., photos., tab. (NACA RM L54G28a)

DATA FROM LARGE-SCALE LOW-SPEED TESTS OF AIRPLANE CONFIGURATIONS WITH A THIN 45° SWEPT WING INCORPORATING SEVERAL LEADING-EDGE CONTOUR MODIFICATIONS. William T. Evans. May 1956. 110p. diagrs., photo., tabs. (NACA RM A56B17)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS - LONGITUDINAL AND LATERAL STABILITY AND CONTROL. William H. Tolhurst, Jr., and Mark W. Kelly. October 1956. 64p. diagrs., photo., tabs. (NACA RM A56E24)

EFFECT OF NOSE SHAPE ON SUBSONIC AERODYNAMIC CHARACTERISTICS OF A BODY OF REVOLUTION HAVING A FINENESS RATIO OF 10.94. Edward C. Polhamus. August 1957. 29p. diagrs. (NACA RM L57F25)

EFFECT OF FREQUENCY OF SIDESLIPPING MOTION ON THE LATERAL STABILITY DERIVATIVES OF A TYPICAL DELTA-WING AIRPLANE. Jacob H. Lichtenstein and James L. Williams. September 1957. 46p. diagrs., photos., tabs. (NACA RM L57F07)

MOTION OF A BALLISTIC MISSILE ANGULARLY MISALINED WITH THE FLIGHT PATH UPON ENTERING THE ATMOSPHERE AND ITS EFFECT UPON AERODYNAMIC HEATING, AERODYNAMIC LOADS, AND MISS DISTANCE. H. Julian Allen. October 1957. 66p. diagrs., tabs. (NACA TN 4048. Supersedes RM A56F15)

FLIGHT INVESTIGATION OF THE TRANSONIC LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Jack Fischel, Euclid C. Holleman, and Robert A. Tremant. December 1957. 61p. diagrs., photos., tab. (NACA RM H57I05)

AERODYNAMIC EFFECTS CAUSED BY ICING OF AN UNSWEPT NACA 65A004 AIRFOIL. Vernon H. Gray and Uwe H. von Glahn. February 1958. 47p. diagrs., photos., tabs. (NACA TN 4155)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC AND STRUCTURAL DEFLECTION CHARACTERISTICS OF THE GOODYEAR INFLATOPLANE. Bennie W. Cocke, Jr. September 1958. 56p. diagrs., photos. (NACA RM L58E09)

(1.8.1.1.1) Longitudinal

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Joseph Weil, Paul Comisarow, and Kenneth W. Goodson. October 17, 1947. 84p. diagrs., photos., tab. (NACA RM L7G28)

SUPERSONIC-TUNNEL TESTS OF TWO SUPERSONIC AIRPLANE MODEL CONFIGURATIONS. Macon C. Ellis, Jr., Lowell E. Hasel, and Carl E. Grigsby. December 31, 1947. 49p. diagrs., photos., tab. (NACA RM L7J15)

RESULTS OBTAINED DURING EXTENSION OF U.S. AIR FORCE TRANSONIC-FLIGHT TESTS OF XS-1 AIRPLANE. Harold R. Goodman and Hubert M. Drake. November 16, 1948. 12p. diagrs. (NACA RM L8I28)

INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A MODEL OF A FIGHTER AIRPLANE WITHOUT A HORIZONTAL TAIL AND EQUIPPED WITH EITHER SINGLE OR TWIN VERTICAL TAILS. John W. Draper and Robert W. Rose. November 15, 1949. 20p. diagrs., photos., tab. (NACA RM L9J07a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

THE EFFECTS OF SCALE AND TEST TECHNIQUE ON THE VALIDITY OF SMALL-SCALE MEASUREMENTS OF THE AERODYNAMIC CHARACTERISTICS OF A WING WITH THE LEADING EDGE SWEPT BACK 63°. L. Stewart Rolls. December 9, 1949. 20p. diagrs., photos. (NACA RM A9J06)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.40. M. Leroy Spearman. April 3, 1950. 27p. diagrs., photos., tab. (NACA RM L9L08)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.59. M. Leroy Spearman and John H. Hilton, Jr. June 29, 1950. 22p. diagrs., photo., tab. (NACA RM L50E12)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. DETERMINATION OF THE AERODYNAMIC CENTER AND ZERO-LIFT PITCHING-MOMENT COEFFICIENT OF THE WING-FUSELAGE COMBINATION BY MEANS OF TAIL-LOAD MEASUREMENTS IN THE MACH NUMBER RANGE FROM 0.37 TO 0.87. John P. Mayer, George M. Valentine, and Geraldine C. Mayer. July 11, 1950. 27p. diagrs., photos., tab. (NACA RM L50D10)

A COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF FOUR WING-FUSELAGE CONFIGURATIONS AS DETERMINED FROM DIFFERENT TEST TECHNIQUES. Charles J. Donlan, Boyd C. Myers, II, and Axel T Mattson. October 4, 1950. 66p. diagrs., photos., tabs. (NACA RM L50H02)

PRELIMINARY RESULTS OF THE FLIGHT INVESTIGATION BETWEEN MACH NUMBERS OF 0.80 AND 1.36 OF A ROCKET-POWERED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Homer P. Mason. October 31, 1950. 30p. diagrs., photos., tab. (NACA RM L50H29a)

DETERMINATION OF LONGITUDINAL STABILITY OF THE BELL X-1 AIRPLANE FROM TRANSIENT RESPONSES AT MACH NUMBERS UP TO 1.12 AT LIFT COEFFICIENTS OF 0.3 AND 0.6. Ellwyn E. Angle and Euclid C. Holleman. November 7, 1950. 22p diagrs. (NACA RM L50I06a)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION USING ROCKET-PROPELLED MODELS. PRELIMINARY RESULTS AT MACH NUMBERS FROM 0.65 TO 1.25. Jesse L. Mitchell and Robert F. Peck. December 1, 1950. 30p. diagrs., photos. (NACA RM L50J03)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF WING LOADS AT MACH NUMBERS UP TO 0.87. John P. Mayer, George M. Valentine, and Beverly J. Swanson. December 26, 1950. 35p. diagrs., photos., tab. (NACA RM L50H16)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. FORCE CHARACTERISTICS OF THE COMPLETE CONFIGURATION AND ITS VARIOUS COMPONENTS AT MACH NUMBERS OF 1.40 AND 1.59. Norman F. Smith and Jack E. Marte. January 22, 1951. 55p. diagrs., photos., tab. (NACA RM L50K14)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 THICKNESS DISTRIBUTION. Charles F. Hall and John C. Heitmeyer. June 12, 1951. 24p. diagrs., photo., tab. (NACA RM A51E01)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

ANALYSIS OF LONGITUDINAL STABILITY AND TRIM OF THE BELL X-1 AIRPLANE AT A LIFT COEFFICIENT OF 0.3 TO MACH NUMBERS NEAR 1.05. Hubert M. Drake, John R. Carden, and Harry P. Clagett. October 1951. 30p. diagrs., photo., tab. (NACA RM L51H01)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF THICKNESS RATIO AND OF THICKENED ROOT SECTIONS ON THE AERODYNAMIC CHARACTERISTICS OF WINGS WITH 47° SWEEPBACK, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat, Daniel E. Harrison, and Domenic A. Coppolino. October 1951. 38p. diagrs., photo., tab. (NACA RM L51I04a)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

A WIND-TUNNEL INVESTIGATION OF THE STATIC STABILITY CHARACTERISTICS OF A 1/8-SCALE EJECTABLE PILOT-SEAT COMBINATION AT A MACH NUMBER OF 0.8. Floravante Visconti and Robert J. Nuber. December 1951. 29p. diagrs., photos. (NACA RM L51H08)

FREE-SPINNING TUNNEL INVESTIGATION OF A 1/20-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE. Burton E. Hultz. December 26, 1951. 23p. diagrs., photos., tab. (NACA RM L51K12)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 1.60. Ross B. Robinson and Cornelius Driver. January 1952. 27p. diagrs., photos., tabs. (NACA RM L51K16a)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. ESTIMATED DOWNWASH ANGLES DERIVED FROM PRESSURE MEASUREMENTS ON THE TAIL AT MACH NUMBERS OF 1.40 AND 1.59. Frederick C. Grant and John P. Gapcynski. March 1952. 27p. diagrs., photos., tabs. (NACA RM L51L17)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TWISTED AND CAMBERED TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION. John C. Heitmeyer and Robert B. Petersen. April 1952. 20p. diagrs., tabs. (NACA RM A52B08)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

EXPERIMENTAL INVESTIGATION OF THE STATIC AERODYNAMIC AND DYNAMIC DAMPING-IN-ROLL CHARACTERISTICS OF AN 8-CM AIRCRAFT ROCKET WITH SOLID AND SLOTTED FINS. Robert S. Chubb. June 1952. ii, 43p. diagrs., photo. (NACA RM A52C04)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF THREE 4-PERCENT-THICK WINGS OF SWEEPBACK ANGLES 10.8°, 35°, AND 47°, ASPECT RATIO 3.5, AND TAPER RATIO 0.2 IN COMBINATION WITH A BODY. Ralph P. Bielat. July 1952. 33p. diagrs., photos., tab. (NACA RM L52B08)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT M = 2.01. Ross B. Robinson. July 1952. 27p. diagrs., photo., tabs. (NACA RM L52E09)

PRELIMINARY INVESTIGATION OF THE LOW-AMPLITUDE DAMPING IN PITCH OF TAILLESS DELTA- AND SWEPT-WING CONFIGURATIONS AT MACH NUMBERS FROM 0.7 TO 1.35. Charles T. D'Aiutolo and Robert N. Parker. August 1952. 27p. diagrs., photos., tab. (NACA RM L52G09)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF NACELLE SHAPE AND POSITION ON THE AERODYNAMIC CHARACTERISTICS OF TWO 47° SWEPTBACK WING-BODY CONFIGURATIONS. Ralph P. Bielat and Daniel E. Harrison. September 1952. 87p. diagrs., photos., tab. (NACA RM L52G02)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK-WING-FUSELAGE COMBINATION MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 27p. diagrs., photos. (NACA RM L52G23)

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL WITH LEADING-EDGE CHORD-EXTENSIONS INCORPORATED ON A 40° SWEPTBACK CIRCULAR-ARC WING OF ASPECT RATIO 4 AND TAPER RATIO 0.50. Kenneth W. Goodson and Albert G. Few, Jr. November 1952. 46p. diagrs., photos., tab. (NACA RM L52I18)

AERODYNAMIC CHARACTERISTICS EXTENDED TO HIGH ANGLES OF ATTACK AT TRANSONIC SPEEDS OF A SMALL-SCALE 0° SWEEP WING, 45° SWEPTBACK WING, AND 60° DELTA WING. Harleth G. Wiley. November 1952. 26p. diagrs. (NACA RM L52I30)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF BODIES MOUNTED FROM THE WING OF AN UNSWEPT-WING-FUSELAGE MODEL, INCLUDING MEASUREMENTS OF BODY LOADS. H. Norman Silvers and Thomas J. King, Jr. November 1952. 37p. diagrs., photos., tabs. (NACA RM L52J08)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON SUBSONIC AND TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE MODELS HAVING 45° SWEPTBACK WINGS OF ASPECT RATIO 4. Kenneth W. Goodson and Albert G. Few, Jr. January 1953. 31p. diagrs., photos., tab. (NACA RM L52K21)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

STABILITY OF BODIES OF REVOLUTION HAVING FINENESS RATIOS SMALLER THAN 1.0 AND HAVING ROUNDED FRONTS AND BLUNT BASES. Stanley H. Scher and James S. Bowman, Jr. January 1953. 23p. diagrs., tabs. (NACA RM L52L08)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF BODY INDENTATION, AS SPECIFIED BY THE TRANSONIC DRAG-RISE RULE, ON THE AERODYNAMIC CHARACTERISTICS AND FLOW PHENOMENA OF A 45° SWEPTBACK-WING-BODY COMBINATION. Harold L. Robinson. February 1953. 33p. diagrs., photos., tab. (NACA RM L52L12)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

SOME APPROXIMATE METHODS FOR ESTIMATING THE EFFECTS OF AEROELASTIC BENDING OF ROCKET-PROPELLED MODEL-BOOSTER COMBINATIONS. Richard G. Arbic, George White, and Warren Gillespie, Jr. March 1953. 40p. diagrs., photos., tabs. (NACA RM L53A08)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS OF VARIOUS COMBINATIONS OF COMPONENTS AT A MACH NUMBER OF 1.6. Clyde V. Hamilton, Cornelius Driver, and John R. Sevier, Jr. March 1953. 48p. diagrs., photo., tabs. (NACA RM L53A14)

FLIGHT DETERMINATION OF THE LONGITUDINAL STABILITY IN ACCELERATED MANEUVERS AT TRANSONIC SPEEDS FOR THE DOUGLAS D-558-II RESEARCH AIRPLANE INCLUDING THE EFFECTS OF AN OUTBOARD WING FENCE. Jack Fischel and Jack Nugent. March 1953. 28p. diagrs., photo., tab. (NACA RM L53A16)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Charles F. Hall. April 1953. 132p. diagrs., tabs. (NACA RM A53A30)

MEASUREMENTS OBTAINED DURING THE GLIDE-FLIGHT PROGRAM OF THE BELL X-2 RESEARCH AIRPLANE. Richard E. Day. July 30, 1953. 27p. diagrs., photos., tabs. (NACA RM L53G03a)

THE INFLUENCE OF A CHANGE IN BODY SHAPE ON THE EFFECTS OF TWIST AND CAMBER AS DETERMINED BY A TRANSONIC WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. August 1953. 23p. diagrs., tab. (NACA RM L53B03)

A ROCKET-MODEL INVESTIGATION OF THE LONGITUDINAL STABILITY, LIFT, AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION WITH HORIZONTAL TAIL OF ASPECT RATIO 4.33. Robert F. Peck and James A. Hollinger. August 1953. 33p. diagrs., photos. (NACA RM L53F19a)

EFFECTS OF LEADING-EDGE SLATS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION AT MACH NUMBERS OF 0.4 TO 1.03. Jack F. Runckel and Seymour Steinberg. August 1953. 50p. diagrs., photos. (NACA RM L53F23)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF MODIFICATIONS TO AN INDENTED BODY IN COMBINATION WITH A 45° SWEPTBACK WING. Donald L. Loving. September 1953. 29p. diagrs., photos., tabs. (NACA RM L53F02)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

A FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.67 TO 1.81 OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE CONFIGURATION HAVING AN ALL-MOVABLE TAIL. Martin T. Moul and Hal T. Baber, Jr. October 1953. 43p. diagrs., photo. (NACA RM L53G29)

INVESTIGATION OF THE EFFECT OF SPANWISE POSITIONING OF A VERTICALLY SYMMETRIC OGIVE-CYLINDER NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6 WITH AND WITHOUT A FUSELAGE. H. Norman Silvers and Thomas J. King, Jr. October 1953. 62p. diagrs., tabs. (NACA RM L53H17)

RELATIONSHIP OF FLOW OVER A 45° SWEPTBACK WING WITH AND WITHOUT LEADING-EDGE CHORD-EXTENSIONS TO LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., and James H. Henderson. October 1953. 47p. diagrs., photos. (NACA RM L53H18b)

THE INTERPRETATION OF NONLINEAR PITCHING MOMENTS IN RELATION TO THE PITCH-UP PROBLEM. George S. Campbell and Joseph Weil. October 1953. 32p. diagrs., tabs. (NACA RM L53I02)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF SEVERAL SEEKER-NOSE CONFIGURATIONS ON THE LONGITUDINAL CHARACTERISTICS OF A CANARD-TYPE MISSILE AT A MACH NUMBER OF 1.60. A. Warner Robins. October 1953. 25p. diagrs., photos., tabs. (NACA RM L53I18)

LONGITUDINAL CHARACTERISTICS OF WINGS. Thomas A. Toll. October 1953. 18p. diagrs. (NACA RM L53I21b)

THE EFFECT OF NOSE RADIUS AND SHAPE ON THE AERODYNAMIC CHARACTERISTICS OF A FUSELAGE AND A WING-FUSELAGE COMBINATION AT ANGLES OF ATTACK. John P. Gapcynski and A. Warner Robins. October 1953. 23p. diagrs. (NACA RM L53I23a)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. M. Leroy Spearman. November 1953. 34p. diagrs., tabs. (NACA RM L53I22)

RECENT DESIGN STUDIES DIRECTED TOWARD ELIMINATION OF PITCH-UP. Joseph Weil and W. H. Gray. November 1953. 16p. diagrs., tab. (NACA RM L53I23c)

A STUDY OF THE USE OF LEADING-EDGE NOTCHES AS A MEANS FOR IMPROVING THE LOW-SPEED PITCHING-MOMENT CHARACTERISTICS OF A THIN 45° SWEPT WING OF ASPECT RATIO 4. Joseph Weil and William D. Morrison, Jr. December 1953. 17p. diagrs. (NACA RM L53J27a)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

EFFECTS OF LEADING-EDGE CHORD EXTENSIONS AND AN ALL-MOVABLE HORIZONTAL TAIL ON THE AERODYNAMIC CHARACTERISTICS OF A WING-BODY COMBINATION EMPLOYING A TRIANGULAR WING OF ASPECT RATIO 3 MOUNTED IN A HIGH POSITION AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel and Frank A. Pfyl. January 1954. 35p. diagrs., photo., tabs. (NACA RM A53J14a)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING A 45° SWEPT WING OF ASPECT RATIO 6.0. John C. McFall, Jr. January 1954. 34p. diagrs., photos. (NACA RM L53G22a)

DETERMINATION OF LONGITUDINAL STABILITY IN SUPERSONIC ACCELERATED MANEUVERS FOR THE DOUGLAS D-558-II RESEARCH AIRPLANE. Herman O. Ankenbruck. February 1954. 29p. diagrs., photos., tab. (NACA RM L53J20)

EFFECT OF WING SLATS AND INBOARD WING FENCES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS. Jack Fischel. February 1954. 125p. diagrs., photos., tabs. (NACA RM L53L16)

EFFECT OF NOSE SHAPE AND TRAILING-EDGE BLUNTNESS ON THE AERODYNAMIC CHARACTERISTICS OF AN UNSWEPT WING OF ASPECT RATIO 3.1, TAPER RATIO 0.4, AND 3-PERCENT THICKNESS. John C. Heitmeyer. March 1954. 36p. diagrs., tabs. (NACA RM A54A04)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A 52.5° DELTA WING AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. March 1954. 31p. diagrs., photos. (NACA RM L54A20)

AN ANALYSIS OF PRESSURE STUDIES AND EXPERIMENTAL AND THEORETICAL DOWNWASH AND SIDEWASH BEHIND FIVE POINTED-TIP WINGS AT SUPERSONIC SPEEDS. William B. Boatright. April 1954. ii, 119p. diagrs., photos. (NACA RM L54B10)

AERODYNAMIC CHARACTERISTICS OF A CRUCIFORM-WING MISSILE WITH CANARD CONTROL SURFACES AND OF SOME VERY SMALL SPAN WING-BODY MISSILES AT A MACH NUMBER OF 1.41. M. Leroy Spearman and Ross B. Robinson. April 1954. 27p. diagrs., tabs. (NACA RM L54B11)

COMPARISON OF EXPERIMENTAL WITH CALCULATED RESULTS FOR THE LIFTING EFFECTIVENESS OF A FLEXIBLE 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AT MACH NUMBERS FROM 0.8 TO 1.3. Richard E. Walters. April 1954. 35p. diagrs., photos., tab. (NACA RM L54B16)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF FINNED AND UNFINNED BODIES MOUNTED AT VARIOUS LOCATIONS FROM THE WINGS OF UNSWEPT, AND SWEPT-WING–FUSELAGE MODELS, INCLUDING MEASUREMENTS OF BODY LOADS. William J. Alford, Jr., and H. Norman Silvers. April 1954. 93p. diagrs., photos., tabs. (NACA RM L54B18)

ROCKET-POWERED MODEL INVESTIGATION OF LIFT, DRAG, AND STABILITY OF A BODY-TAIL CONFIGURATION AT MACH NUMBERS FROM 0.8 TO 2.3 AND ANGLES OF ATTACK BETWEEN ±6.5°. Warren Gillespie, Jr., and Albert E. Dietz. April 1954. 42p. diagrs., photos., tabs. (NACA RM L54C04)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF ADDING VARIOUS COMBINATIONS OF MISSILES ON THE AERODYNAMIC CHARACTERISTICS OF SWEPTBACK AND UNSWEPT WINGS COMBINED WITH A FUSELAGE. H. Norman Silvers and William J. Alford, Jr. June 1954. 39p. diagrs., photo., tabs. (NACA RM L54D20)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF TAILLESS DELTA-WING–BODY COMBINATIONS AT MACH NUMBERS FROM 0.80 TO 1.35 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. June 1954. 34p. diagrs., photos., tab. (NACA RM L54D29)

A WIND-TUNNEL INVESTIGATION OF THE USE OF SPOILERS FOR OBTAINING STATIC LONGITUDINAL STABILITY OF A CANARD-MISSILE MODEL IN REVERSE FLIGHT. Herman S. Fletcher. June 1954. 15p. diagrs., tab. (NACA RM L54E05)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

WIND-TUNNEL INVESTIGATION AT A MACH NUMBER OF 2.01 OF THE AERODYNAMIC CHARACTERISTICS IN COMBINED PITCH AND SIDESLIP OF SOME CANARD-TYPE MISSILES HAVING CRUCIFORM WINGS AND CANARD SURFACES WITH 70° DELTA PLAN FORMS. M. Leroy Spearman and Cornelius Driver. August 1954. 121p. diagrs., tabs. (NACA RM L54F09)

INVESTIGATION OF THE EFFECT OF INDENTATION ON AN M-PLAN-FORM-WING–BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. August 1954. 24p. diagrs., photos., tab. (NACA RM L54F14)

EFFECTS OF CANOPY, REVISED VERTICAL TAIL, AND A YAW-DAMPER VANE ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT A MACH NUMBER OF 2.01. Ross B. Robinson. August 1954. 29p. diagrs., tabs. (NACA RM L54F25)

AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 2.01 OF TWO CRUCIFORM MISSILE CONFIGURATIONS HAVING 70° DELTA WINGS WITH LENGTH-DIAMETER RATIOS OF 14.8 AND 17.7 WITH SEVERAL CANARD CONTROLS. M. Leroy Spearman and Ross B. Robinson. August 1954. 32p. diagrs., tabs. (NACA RM L54G20)

STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.8 TO 1.5 OF A FREE-FLIGHT MODEL HAVING 3-PERCENT-THICK, 60° TRIANGULAR WING AND HORIZONTAL TAIL SURFACES. Rowe Chapman, Jr., and Harvey A. Wallskog. August 1954. 30p. diagrs., photos., tab. (NACA RM L54G23a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.61 OF THE COMPLETE CONFIGURATION EQUIPPED WITH SPOILERS. Clyde V. Hamilton and Cornelius Driver. September 1954. 28p. diagrs. (NACA RM L54F15)

LOW-SPEED MEASUREMENT OF STATIC STABILITY AND DAMPING DERIVATIVES OF A 60° DELTA-WING MODEL FOR ANGLES OF ATTACK OF 0° TO 90°. Donald E. Hewes. September 1954. 30p. diagrs., photo., tab. (NACA RM L54G22a)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A DIAMOND-PLAN-FORM WING OF ASPECT RATIO 3.08 AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1954. 37p. diagrs., photos. (NACA RM L54G27a)

LONGITUDINAL STABILITY CHARACTERISTICS IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE EQUIPPED WITH A LEADING-EDGE WING CHORD-EXTENSION. Jack Fischel and Cyril D. Brunn. October 1954. 62p. diagrs., photos., tab. (NACA RM H54H16)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. AERODYNAMIC CHARACTERISTICS OF THE CONFIGURATION EQUIPPED WITH A CANARD CONTROL SURFACE AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 22p. diagrs., photo., tab. (NACA RM L54H19)

DETERMINATION OF LONGITUDINAL HANDLING QUALITIES OF THE D-558-II RESEARCH AIRPLANE AT TRANSONIC AND SUPERSONIC SPEEDS TO A MACH NUMBER OF ABOUT 2.0. Herman O. Ankenbruck. November 1954. 25p. diagrs., photos., tab. (NACA RM H54G29a)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A CANARD CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AND NACA 65A009 AIRFOIL SECTION. A. James Vitale and John C. McFall, Jr. November 1954. 24p. diagrs., photos., tab. (NACA RM L54I01)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF FOUR TAILLESS SWEPT WING-BODY COMBINATIONS AT MACH NUMBERS FROM 0.85 TO 1.30 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. November 1954. 34p. diagrs., photos., tab. (NACA RM L54I10)

LOW-SPEED MEASUREMENTS OF ROLLING AND YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Joseph L. Johnson, Jr. December 1954. 17p. diagrs., tab. (NACA RM L54G27)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS AND SMALL ANGLES OF ATTACK OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 3 WITH AN NACA 64A006 AIRFOIL SECTION. George H. Holdaway. January 1955. 32p. diagrs., photo., tab. (NACA RM A54I17)

EFFECT OF TAPER RATIO ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 WITH 53.1° SWEEPBACK OF LEADING EDGE AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. January 1955. 25p. diagrs., photo., tabs. (NACA RM A54J20)

LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-BODY-TAIL COMBINATION HAVING A WING WITH 45° OF SWEEPBACK AND A TAIL IN VARIOUS VERTICAL POSITIONS. Jack D. Stephenson, Angelo Bandettini, and Ralph Selan. January 1955. 64p. diagrs., photos., tabs. (NACA RM A54K09)

JET EFFECTS ON LONGITUDINAL TRIM OF AN AIRPLANE CONFIGURATION MEASURED AT MACH NUMBERS BETWEEN 1.2 AND 1.8. Robert F. Peck. January 1955. 17p. diagrs., photos. (NACA RM L54J29a)

TRANSONIC LONGITUDINAL AERODYNAMIC EFFECTS OF SWEEPING UP THE REAR OF THE FUSELAGE OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING NO HORIZONTAL TAIL. James H. Parks. January 1955. 30p. diagrs., photo. (NACA RM L54K12)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

EFFECTS OF INCREASING REYNOLDS NUMBER FROM 2×10^6 TO 6×10^6 ON THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A 45° SWEPT WING WITH 6° LEADING-EDGE DROOP. James W. Schmeer and J. Lawrence Cooper. February 1955. 22p. diagrs., photo. (NACA RM L54L10)

THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF SEVERAL WING-FUSELAGE-TAIL COMBINATIONS HAVING SWEPTBACK WINGS WITH NACA FOUR-DIGIT THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. March 1955. 128p. diagrs., photos., tab. (NACA RM A54L08)

EFFECTS OF TAPER RATIO ON THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS FROM 0.6 TO 1.4 OF A WING-BODY-TAIL COMBINATION HAVING AN UNSWEPT WING OF ASPECT RATIO 3. James L. Summers, Stuart L. Treon, and Lawrence A. Graham. March 1955. 45p. diagrs., photo. (NACA RM A54L20)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Lorén G. Bright. March 1955. 40p. diagrs., photos., tabs. (NACA RM A54L27)

EFFECTS OF SWEEP AND TAPER RATIO ON THE LONGITUDINAL CHARACTERISTICS OF AN ASPECT RATIO 3 WING-BODY COMBINATION AT MACH NUMBERS FROM 0.6 TO 1.4. Earl D. Knechtel and James L. Summers. March 1955. 36p. diagrs., photo. (NACA RM A55A03)

EXPLORATORY INVESTIGATION OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE IDENTICAL TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. April 1955. 25p. diagrs., photos. (NACA RM A55C28)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO DELTA WINGS AND ONE CLIPPED-TIP DELTA WING OF 4 PERCENT THICKNESS ON A SLENDER BODY. William E. Palmer and Dale L. Burrows. April 1955. 31p. diagrs., photo. (NACA RM L55A07a)

LIFT, DRAG, AND LONGITUDINAL STABILITY AT MACH NUMBERS FROM 0.8 TO 2.1 OF A ROCKET-POWERED MODEL HAVING A TAPERED UNSWEPT WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. April 1955. 29p. diagrs., photo., tabs. (NACA RM L55B10)

COMPARISON OF THE STATIC STABILITY OF A 68.7° DELTA-WING MODEL WITH DIHEDRAL AND A TWISTED AND CAMBERED WING MODEL OF THE SAME PLAN FORM. John W. Paulson. April 1955. 18p. diagrs., tab. (NACA RM L55B11)

INVESTIGATION OF THE EFFECTS OF AN AIRFOIL SECTION MODIFICATION ON THE AERODYNAMIC CHARACTERISTICS AT SUBSONIC AND SUPERSONIC SPEEDS OF A THIN SWEPT WING OF ASPECT RATIO 3 IN COMBINATION WITH A BODY. David Graham and William T. Evans. June 1955. 46p. diagrs., tabs. (NACA RM A55D11)

A COMPARISON AT MACH NUMBERS UP TO 0.92 OF THE CALCULATED AND EXPERIMENTAL DOWNWASH AND WAKE CHARACTERISTICS AT VARIOUS HORIZONTAL TAIL HEIGHTS BEHIND A WING WITH 45° OF SWEEPBACK. Jack D. Stephenson, Ralph Selan, and Angelo Bandettini. June 1955. 81p. diagrs., photos., tabs. (NACA RM A55D27a)

ADDITIONAL MEASUREMENTS OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. July 1955. 31p. diagrs. (NACA RM A55F02a)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE LOW-SPEED STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. July 1955. 62p. diagrs., photos., tabs. (NACA RM H55E31a)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF VARIOUS UNDERWING EXTERNAL-STORE ARRANGEMENTS ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. H. Norman Silvers and Thomas J. King, Jr. July 1955. 59p. diagrs., photos., tab. (NACA RM L55D11)

INVESTIGATION OF THE EFFECTS OF BODY INDENTATION AND OF WING-PLAN-FORM MODIFICATION ON THE LONGITUDINAL CHARACTERISTICS OF A 60° SWEPT-WING—BODY COMBINATION AT MACH NUMBERS OF 1.41, 1.61, AND 2.01. John R. Sevier, Jr. July 1955. 37p. diagrs., tab. (NACA RM L55E17)

SUMMARY AND ANALYSIS OF HORIZONTAL-TAIL CONTRIBUTION TO LONGITUDINAL STABILITY OF SWEPT-WING AIRPLANES AT LOW SPEEDS. Robert H. Neely and Roland F. Griner. August 1955. ii, 133p. diagrs., tabs. (NACA RM L55E23a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL CHARACTERISTICS OF A 3-PERCENT-THICK, ASPECT-RATIO-3, DELTA WING CAMBERED AND TWISTED FOR HIGH LIFT-DRAG RATIOS. Dale L. Burrows and Warren A. Tucker. August 1955. 38p. diagrs., photos., tab. (NACA RM L55F02a)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 2. Maurice D. White. September 1955. 39p. diagrs., photo., tabs. (NACA RM A55F21)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.7 TO 1.75 OF A FOUR-ENGINE SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM A ROCKET-PROPELLED MODEL TEST. Rowe Chapman, Jr. September 1955. 39p. diagrs., photos., tabs. (NACA RM L55F23)

LONGITUDINAL CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING A 60° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Robert F. Peck and Lucille C. Coltrane. September 1955. 33p. diagrs., photo., tabs. (NACA RM L55F27)

FREE-FLIGHT INVESTIGATION TO OBTAIN DRAG-AT-LIFT AND STABILITY DATA FOR A 60° DELTA-WING—BODY CONFIGURATION OVER A MACH NUMBER RANGE OF 1.3 TO 1.6. Clement J. Welsh. October 1955. 23p. diagrs., photo., tab. (NACA RM L55G14)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPT-BACK WINGS INCORPORATING LEADING-EDGE CAMBER AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.00×10^6 AND MACH NUMBERS UP TO 0.290. Gerald V. Foster. October 1955. 44p. diagrs. (NACA RM L55H04)

A SYSTEMATIC STUDY OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF THREE 45° SWEPTBACK WINGS. H. Neale Kelly. October 1955. 113p. diagrs., photo., tabs. (NACA RM L55H19)

EFFECT OF LEADING-EDGE SWEEPBACK ON LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF THIN WINGS OF ASPECT RATIO 3 AND TAPER RATIO 0.4 AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel. November 1955. 22p. diagrs., tabs. (NACA RM A55H04a)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON AN 80° DELTA-WING MISSILE. Thomas R. Turner and Raymond D. Vogler. November 1955. 32p. diagrs. (NACA RM L55H22)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF EXTERNAL STORES AND STORE POSITION ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas C. Kelly. November 1955. 31p. diagrs., photos., tab. (NACA RM L55I07)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL HAVING CROPPED-DELTA AND UNSWEPT WING PLAN FORMS AND SEVERAL TAIL CONFIGURATIONS. Albert G. Few, Jr. November 1955. 107p. diagrs., photo., tab. (NACA RM L55I23a)

THE EFFECT OF LEADING-EDGE EXTENSIONS OF THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-FUSELAGE-TAIL COMBINATION HAVING A 40° SWEPTBACK WING WITH NACA 64A THICKNESS DISTRIBUTION. Fred B. Sutton. January 1956. 52p. diagrs., photos., tabs. (NACA RM A55I29)

EFFECT OF LARGE NEGATIVE DIHEDRAL OF THE HORIZONTAL TAIL ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A SWEPT-WING CONFIGURATION AT TRANSONIC SPEEDS. Donald D. Arabian. January 1956. 24p. diagrs., photos. (NACA RM L55I20)

AN INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC MACH NUMBERS OF A SWEPT-WING SUPERSONIC BOMBER CONFIGURATION. Ralph P. Bielat and J. Lawrence Cooper. February 1956. 92p. diagrs., photos., tabs. (NACA RM L53F05)

SOME EFFECTS OF SWEEP AND THICKNESS ON THE EXPERIMENTAL DOWNWASH CHARACTERISTICS AT TRANSONIC SPEEDS OF A SERIES OF HIGHLY TAPERED WINGS WITH AN ASPECT RATIO OF 3. TRANSONIC-BUMP METHOD. Albert G. Few, Jr. February 1956. 65p. diagrs., photo. (NACA RM L55J12)

PRELIMINARY FREE-FLIGHT STUDY OF THE DRAG AND STABILITY OF A SERIES OF SHORT-SPAN MISSILES AT MACH NUMBERS FROM 0.9 TO 1.3. James Rudyard Hall. February 1956. 14p. diagrs., photo. (NACA RM L55J13)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF FUSELAGE CROSS-SECTION SHAPE AND WING HEIGHT ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL HAVING A 45° SWEPT WING. Thomas J. King, Jr. February 1956. 61p. diagrs., photo. (NACA RM L55J25)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Raymond D. Vogler and Thomas R. Turner. February 1956. 17p. diagrs. (NACA RM L55K09)

LONGITUDINAL STABILITY INVESTIGATION FOR A MACH NUMBER RANGE OF 0.8 TO 1.7 OF AN AIRPLANE CONFIGURATION WITH A 45° SWEPT WING AND A LOW HORIZONTAL TAIL. John C. McFall, Jr. February 1956. 32p. diagrs., photos., tab. (NACA RM L55L09)

RESULTS OF ROCKET MODEL TEST OF AN AIRPLANE CONFIGURATION HAVING AN ARROW WING AND SLENDER FLAT-SIDED FUSELAGE. LIFT, DRAG, LONGITUDINAL STABILITY, LATERAL FORCE, AND JET EFFECTS AT MACH NUMBERS BETWEEN 1.0 AND 2.3. Robert F. Peck. February 1956. 26p. diagrs., photo. (NACA RM L55L29)

SOME EFFECTS OF AILERONS ON THE VARIATION OF AERODYNAMIC CHARACTERISTICS WITH SIDESLIP AT LOW SPEED. Kenneth W. Goodson. March 1956. 40p. diagrs., tab. (NACA RM L55L20)

LOW-SPEED STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL. John M. Riebe and William C. Moseley, Jr. March 1956. 27p. diagrs. (NACA RM L55L21a)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF TWO 60° SWEPTBACK WINGS AT HIGH REYNOLDS NUMBERS. William C. Schneider. March 1956. 46p. diagrs. (NACA RM L55L30)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING DIHEDRAL ANGLE AND FIN LENGTH ON THE STATIC STABILITY CHARACTERISTICS OF A MODEL HAVING AN 82° DELTA WING. Kenneth P. Spreemann. April 1956. 30p. diagrs. (NACA RM L55L30a)

AN EXPERIMENTAL STUDY AT HIGH SUBSONIC SPEEDS OF SEVERAL TAIL CONFIGURATIONS ON A MODEL WITH AN UNSWEPT WING. William C. Sleeman, Jr. April 1956. 67p. diagrs., photos. (NACA RM L56A06a)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF STORE AND HORIZONTAL-TAIL LOADS AND SOME EFFECTS OF FUSELAGE-AFTERBODY MODIFICATIONS ON A SWEPT-WING FIGHTER AIRPLANE. Joseph M. Hallissy, Jr., and Louis Kudlacik. April 1956. 79p. diagrs., photos. (NACA RM L56A26)

LOW-SPEED MEASUREMENTS OF STATIC STABILITY, DAMPING IN YAW, AND DAMPING IN ROLL OF A DELTA, A SWEPT, AND AN UNSWEPT WING FOR ANGLES OF ATTACK FROM 0° TO 90°. Joseph L. Johnson, Jr. April 1956. 19p. diagrs., tabs. (NACA RM L56B01)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF HORIZONTAL-TAIL LOCATION ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING A SWEPTBACK WING IN A HIGH LOCATION. H. Norman Silvers and Thomas J. King, Jr. April 1956. 46p. diagrs., tab. (NACA RM L56B10)

EFFECTS OF REYNOLDS NUMBER AND LEADING-EDGE SHAPE ON THE LOW-SPEED LONGITUDINAL STABILITY OF A 6-PERCENT-THICK 45° SWEPTBACK WING. William C. Schneider. April 1956. 32p. diagrs. (NACA RM L56B14)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS AT COMBINED ANGLES OF PITCH AND SIDESLIP FOR MACH NUMBER 2.01. Cornelius Driver and Clyde V. Hamilton. April 1956. 67p. diagrs., photo., tabs. (NACA RM L56B21)

FULL-SCALE WIND-TUNNEL TESTS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF THE XV-1 CONVERTIPLANE IN THE AUTOROTATING FLIGHT RANGE. David H. Hickey. May 1956. 64p. diagrs., photos., tabs. (NACA RM A55K21a)

A HORIZONTAL-TAIL ARRANGEMENT FOR COUNTERACTING STATIC LONGITUDINAL INSTABILITY OF SWEPTBACK WINGS. George G. Edwards and Howard F. Savage. May 1956. 51p. diagrs., photos., tab. (NACA RM A56D06)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

INVESTIGATION OF THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF TRAILING-EDGE FLAPS OF VARIOUS SPANS ON A WING OF 45° SWEEPBACK AND ASPECT RATIO 6. Roy N. Griffin, Jr., and David H. Hickey. June 1956. 64p. diagrs., photo., tabs. (NACA RM A56B27)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE SUBSONIC AND TRANSONIC LONGITUDINAL HANDLING QUALITIES OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. June 1956. 57p. diagrs., photos., tabs. (NACA RM H56C30)

THE EFFECT OF CONICAL CAMBER ON THE STATIC LONGITUDINAL, LATERAL, AND DIRECTIONAL CHARACTERISTICS OF A 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. July 1956. 64p. diagrs., tabs. (NACA RM A56D02)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING THE LONGITUDINAL CHARACTERISTICS OF A THIN UNSWEPT-WING MODEL EQUIPPED WITH LEADING- AND TRAILING-EDGE FLAPS. David G. Koenig. July 1956. 52p. diagrs., photo., tabs. (NACA RM A56D23)

LOW-SPEED WIND-TUNNEL RESULTS FOR A THIN ASPECT-RATIO-1.85 POINTED-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAPS. Albert E. Brown. July 1956. 31p. diagrs., tabs. (NACA RM L56D03)

BLOWING OVER THE FLAPS AND WING LEADING EDGE OF A THIN 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH LEADING-EDGE DEVICES. H. Clyde McLemore and Marvin P. Fink. July 1956. 57p. diagrs., photo. (NACA RM L56E16)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING THICKNESS ON THE STATIC LONGITUDINAL AND LATERAL STABILITY OF UNSWEPT WINGS OF ASPECT RATIO 3 AT HIGH SUBSONIC SPEEDS. William C. Hayes, Jr., and Edward C. Polhamus. August 1956. 43p. diagrs., photos. (NACA RM L56E30a)

APPLICATION OF AREA SUCTION TO LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 44° SWEPT-WING MODEL. Curt A. Holzhauser, Robert K. Martin, and V. Robert Page. September 1956. 66p. diagrs., photos., tabs. (NACA RM A56F01)

INVESTIGATION OF SPOILER-SLOT-DEFLECTOR AILERONS AND OTHER SPOILER AILERONS ON A 45° SWEPTBACK-WING—FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., Charles F. Whitcomb, and James W Schmeer. September 1956. 59p. diagrs., tab. (NACA RM L56F15)

TRANSONIC WIND-TUNNEL INVESTIGATION OF STATIC LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF TWO WING-BODY COMBINATIONS WITH CLIPPED-TIP AND FULL DELTA WINGS OF ASPECT RATIO 1.73. Dale L. Burrows. September 1956. 26p. diagrs. (NACA RM L56F21)

(1) AERODYNAMICS

EFFECT OF A FUSELAGE ON THE LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. September 1956. 31p. diagrs., tabs. (NACA RM L56G02)

FREE-FLIGHT INVESTIGATION OVER A MACH NUMBER RANGE FROM 0.74 TO 1.43 AT LIFT COEFFICIENTS FROM -0.15 TO 0.75 OF AN AIRPLANE-CONFIGURATION MODEL HAVING A 52.5° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1956. 41p. diagrs., photos. (NACA RM L56G09)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

COMBINED EFFECTS OF WING TAPER RATIO AND LOW HORIZONTAL-TAIL POSITION ON LONGITUDINAL STABILITY OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Stanley H. Spooner. October 1956. 28p. diagrs., tab. (NACA RM L56H24)

A LOW-SPEED INVESTIGATION OF A HIGH-LIFT LATERAL-CONTROL DEVICE CONSISTING OF A SPOILER-SLOT-DEFLECTOR AND A TRAILING-EDGE FLAP ON A TAPERED 45° SWEPTBACK WING. Alexander D. Hammond and Jarrett K. Huffman. October 1956. 21p. diagrs. (NACA RM L56H31)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH A 45° SWEPTBACK WING OF ASPECT RATIO 2.8 WITH AREA SUCTION APPLIED TO TRAILING-EDGE FLAPS AND WITH SEVERAL WING LEADING-EDGE MODIFICATIONS. David G. Koenig and Kiyoshi Aoyagi. November 1956. 66p. diagrs., photo., tabs. (NACA RM A56H08)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A THIN-DELTA-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAP, EXTENDED DOUBLE SLOTTED FLAP, AND CANARD. Delwin R. Croom and Jarrett K. Huffman. November 1956. 104p. diagrs., tabs. (NACA RM L56I11)

LOW-SPEED MEASUREMENT OF TAIL CONTRIBUTION TO ROLLING STABILITY DERIVATIVES AND AIR-FLOW ANGULARITY AT THE TAIL FOR AN X-TAIL MODEL IN STEADY ROLL INCLUDING SOME EFFECTS OF WING-TIP STORES. Donald R. Riley. November 1956. 28p. diagrs., photo., tab. (NACA RM L56I21)

FORCE TEST RESULTS FOR BODY-MOUNTED LATERAL CONTROLS AND SPEED BRAKES ON A 45° SWEPT-WING MODEL AT MACH NUMBERS FROM 0.80 TO 0.98. F. E. West, Jr., and Chris C. Critzos. December 1956. 32p. diagrs., photos., tab. (NACA RM L56I05)

AN ANALYSIS OF THE EFFECTS OF AEROELASTICITY ON STATIC LONGITUDINAL STABILITY AND CONTROL OF A SWEPT-WING AIRPLANE. Richard B. Skoog. 1957. ii, 12p. diagrs. (NACA Rept. 1298. Supersedes RM A51C19)

A SECOND-ORDER SHOCK-EXPANSION METHOD APPLICABLE TO BODIES OF REVOLUTION NEAR ZERO LIFT. Clarence A. Syvertson and David H. Dennis. 1957. ii, 20p. diagrs., tabs. (NACA Rept. 1328. Supersedes TN 3527)

DETERMINATION OF LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS FROM FREE-FLIGHT MODEL TESTS WITH RESULTS AT TRANSONIC SPEEDS FOR THREE AIRPLANE CONFIGURATIONS. Clarence L. Gillis and Jesse L. Mitchell. 1957. ii, 28p. diagrs., photos., tabs. (NACA Rept. 1337)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

INVESTIGATION OF DOWNWASH, SIDEWASH, AND MACH NUMBER DISTRIBUTION BEHIND A RECTANGULAR WING AT A MACH NUMBER OF 2.41. David Adamson and William B. Boatright. 1957. ii, 57p. diagrs., photos., tab. (NACA Rept. 1340. Supersedes RM L50G12)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT, HIGHLY TAPERED, THIN WINGS AT TRANSONIC SPEEDS. TRANSONIC-BUMP METHOD. Albert G. Few, Jr., and Paul G. Fournier. January 1957. 57p. diagrs., photo. (NACA RM L56I24)

STATIC LONGITUDINAL CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A COMPLETE AIRPLANE MODEL WITH A HIGHLY TAPERED WING HAVING THE 0.80 CHORD LINE UNSWEPT AND WITH SEVERAL TAIL CONFIGURATIONS. Kenneth W. Goodson. January 1957. 57p. diagrs., photo., tabs. (NACA RM L56J03)

HIGH-PRESSURE BLOWING OVER FLAP AND WING LEADING EDGE OF A THIN LARGE-SCALE 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH A DROOPED NOSE AND A NOSE WITH A RADIUS INCREASE. Marvin P. Fink and H. Clyde McLemore. May 1957. 40p. diagrs., photo. (NACA RM L57D23)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. I - EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE LONGITUDINAL CHARACTERISTICS. Bruce E. Tinling and Armando E. Lopez. July 1957. 85p. diagrs., photo., tabs. (NACA TN 4041. Supersedes RM A53L15)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. III - EFFECTS OF TRAILING-EDGE FLAPS. Bruce E. Tinling and A. V. Karpen. July 1957. 37p. diagrs., photos., tabs. (NACA TN 4043. Supersedes RM A54L07)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1957. 48p. diagrs., photos., tabs. (NACA TN 4044. Supersedes RM A55E04)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 45° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. David F. Thomas, Jr., and Walter D. Wolhart. September 1957. 30p. diagrs., photos., tabs. (NACA TN 4077)

EXPERIMENTAL INVESTIGATION OF LIFT, DRAG, AND PITCHING MOMENT OF FIVE ANNULAR AIRFOILS. Herman S. Fletcher. October 1957. 25p. diagrs., photos. (NACA TN 4117)

EFFECT OF GROUND PROXIMITY ON THE AERODYNAMIC CHARACTERISTICS OF A FOUR-ENGINE VERTICAL-TAKE-OFF-AND-LANDING TRANSPORT-AIRPLANE MODEL WITH TILTING WING AND PROPELLERS. William A. Newsom, Jr. October 1957. 15p. diagrs., photo., tab. (NACA TN 4124)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP AND LEADING-EDGE MODIFICATIONS TO IMPROVE THE HIGH-LIFT CHARACTERISTICS OF AN AIRPLANE MODEL WITH A WING OF 45° SWEEP AND ASPECT RATIO 2.8. David G. Koenig and Kiyoshi Aoyagi. November 1957. 46p. diagrs., photo., tabs. (NACA RM A57H21)

INVESTIGATION OF DEFLECTORS AS GUST ALLEVIATORS ON A 0.09-SCALE MODEL OF THE BELL X-5 AIRPLANE WITH VARIOUS WING SWEEP ANGLES FROM 20° TO 60° AT MACH NUMBERS FROM 0.40 TO 0.90. Delwin R. Croom and Jarrett K. Huffman. November 1957. 28p. diagrs. (NACA TN 4175)

INVESTIGATION OF THE EFFECTS OF PROPELLER DIAMETER ON THE ABILITY OF A FLAPPED WING, WITH AND WITHOUT BOUNDARY-LAYER CONTROL, TO DEFLECT A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. December 1957. 47p. diagrs., photos. (NACA TN 4181)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. December 1957. 29p. diagrs., photo., tabs. (NACA TN 4192. Supersedes RM L54C02)

LOW-SPEED BOUNDARY-LAYER-CONTROL INVESTIGATION ON A THIN RECTANGULAR SEMISPAN WING WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Delwin R. Croom and Thomas R. Turner. January 1958. 213p. diagrs., tabs. (NACA RM L57J15)

EFFECT OF FLOW INCIDENCE AND REYNOLDS NUMBER ON LOW-SPEED AERODYNAMIC CHARACTERISTICS OF SEVERAL NONCIRCULAR CYLINDERS WITH APPLICATIONS TO DIRECTIONAL STABILITY AND SPINNING. Edward C. Polhamus. January 1958. 54p. diagrs., photo., tab. (NACA TN 4176)

WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL STABILITY AND TRIM CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED FLAP. Joseph L. Johnson, Jr. January 1958. 89p. diagrs., tab. (NACA TN 4177)

EFFECTIVENESS OF BOUNDARY-LAYER CONTROL, OBTAINED BY BLOWING OVER A PLAIN REAR FLAP IN COMBINATION WITH A FORWARD SLOTTED FLAP, IN DEFLECTING A SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann. February 1958. 32p. diagrs., photo. (NACA TN 4200)

LOW-SUBSONIC INVESTIGATION TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND EFFECTIVENESS OF SPOILERS ON A THIN, LOW-ASPECT-RATIO, UNSWEPT, UNTAPERED, SEMISPAN WING AND ON THE WING WITH LEADING- AND TRAILING-EDGE FLAPS. Delwin R. Croom. April 1958. 133p. diagrs., tabs. (NACA RM L58B05)

EFFECTS OF FIXING BOUNDARY-LAYER TRANSITION FOR AN UNSWEPT-WING MODEL AND AN EVALUATION OF POROUS TUNNEL-WALL INTERFERENCE FOR MACH NUMBERS FROM 0.60 TO 1.40. Louis S. Stivers, Jr., and Garth W. Lippmann. April 1958. 37p. diagrs. (NACA TN 4228)

DATA FROM FLOW-FIELD SURVEYS BEHIND A LARGE-SCALE THIN STRAIGHT WING OF ASPECT RATIO 3. William T. Evans. June 1958. 13p. diagrs. (NACA RM A58D17)

USE OF THE COANDA EFFECT FOR OBTAINING JET DEFLECTION AND LIFT WITH A SINGLE FLAT-PLATE DEFLECTION SURFACE. Uwe H. von Glahn. June 1958. 49p. diagrs., tabs. (NACA TN 4272)

AERODYNAMIC RESEARCH ON FUSELAGES WITH RECTANGULAR CROSS SECTION. (Aerodynamische Untersuchungen an Rümpfen mit rechteckähnlichem Querschnitt.) K. Maruhn. July 1958. 37p. diagrs. (NACA TM 1414. Translation from Jahrbuch 1942 der deutschen Luftfahrtforschung, p. 263-279.)

DYNAMIC STABILITY OF VEHICLES TRAVERSING ASCENDING OR DESCENDING PATHS THROUGH THE ATMOSPHERE. Murray Tobak and H. Julian Allen. July 1958. (i), 35p. diagrs. (NACA TN 4275)

EFFECTS OF FIXING TRANSITION ON THE TRANSONIC AERODYNAMIC CHARACTERISTICS OF A WING-BODY CONFIGURATION AT REYNOLDS NUMBERS FROM 2.4 TO 12 MILLION. Lynn W. Hunton. July 1958. 56p. diagrs. (NACA TN 4279)

WIND-TUNNEL INVESTIGATION OF THE HIGH-SUBSONIC STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF SEVERAL WING-BODY CONFIGURATIONS DESIGNED FOR HIGH LIFT-DRAG RATIOS AT A MACH NUMBER OF 1.4. Paul G. Fournier. July 1958. 42p. diagrs., photo., tab. (NACA TN 4340)

LOW-SPEED EXPERIMENTAL DETERMINATION OF THE EFFECTS OF LEADING-EDGE RADIUS AND PROFILE THICKNESS ON STATIC AND OSCILLATORY LATERAL STABILITY DERIVATIVES FOR A DELTA WING WITH 60° OF LEADING-EDGE SWEEP. Herman S. Fletcher. July 1958. 45p. diagrs., photos., tabs. (NACA TN 4341)

EXPLORATORY WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF JET FLAPS ON UNSWEPT RECTANGULAR WINGS. Vernard E. Lockwood and Raymond D. Vogler. August 1958. 37p. diagrs. (NACA TN 4353)

THE EFFECTS OF AN INVERSE-TAPER LEADING-EDGE FLAP ON THE AERODYNAMIC CHARACTERISTICS IN PITCH OF A WING-BODY COMBINATION HAVING AN ASPECT RATIO OF 3 AND 45° OF SWEEPBACK AT MACH NUMBERS TO 0.92. Fred A. Demele and K. Harmon Powell. August 1958. 57p. diagrs., photo., tabs. (NACA TN 4366)

USE OF THE COANDA EFFECT FOR JET DEFLECTION AND VERTICAL LIFT WITH MULTIPLE-FLAT-PLATE AND CURVED-PLATE DEFLECTION SURFACES. Uwe H. von Glahn. APPENDIX B: ESTIMATED PERFORMANCE OF MULTIPLE-FLAT-PLATE DEFLECTORS. Thomas F. Gelder. September 1958. 54p. diagrs., photo., tabs. (NACA TN 4377)

COMPARISON OF SHOCK-EXPANSION THEORY WITH EXPERIMENT FOR THE LIFT, DRAG, AND PITCHING-MOMENT CHARACTERISTICS OF TWO WING-BODY COMBINATIONS AT M = 5.0. Raymond C. Savin. September 1958. 13p. diagrs. (NACA TN 4385)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 60° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. Walter D. Wolhart and David F. Thomas, Jr. September 1958. 41p. diagrs., tabs. (NACA TN 4397)

(1.8.1.1.2) Lateral

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Kenneth W. Goodson and Paul Comisarow. October 17, 1947. 72p. diagrs., photos., tab. (NACA RM L7G31)

INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A MODEL OF A FIGHTER AIRPLANE WITHOUT A HORIZONTAL TAIL AND EQUIPPED WITH EITHER SINGLE OR TWIN VERTICAL TAILS. John W. Draper and Robert W. Rose. November 15, 1949. 20p. diagrs., photos., tab. (NACA RM L9J07a)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LATERAL STABILITY CHARACTERISTICS AT MACH NUMBERS OF 1.40 AND 1.59. M. Leroy Spearman. June 14, 1950. 28p. diagrs., photos., tab. (NACA RM L50C17)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LATERAL CONTROL CHARACTERISTICS AT MACH NUMBERS OF 1.40 AND 1.59. Ross B. Robinson. November 10, 1950. 40p. diagrs., photos., tabs. (NACA RM L50I11)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. FORCE CHARACTERISTICS OF THE COMPLETE CONFIGURATION AND ITS VARIOUS COMPONENTS AT MACH NUMBERS OF 1.40 AND 1.59. Norman F. Smith and Jack E. Marte. January 22, 1951. 55p. diagrs., photos., tab. (NACA RM L50K14)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 1.60. M. Leroy Spearman and John H. Hilton, Jr. January 1952. 31p. diagrs., tabs. (NACA RM L51K15a)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

EXPERIMENTAL INVESTIGATION OF THE STATIC AERODYNAMIC AND DYNAMIC DAMPING-IN-ROLL CHARACTERISTICS OF AN 8-CM AIRCRAFT ROCKET WITH SOLID AND SLOTTED FINS. Robert S. Chubb. June 1952. ii, 43p. diagrs., photo. (NACA RM A52C04)

AERODYNAMIC CHARACTERISTICS AT SUPERSONIC SPEEDS OF A SERIES OF WING-BODY COMBINATIONS HAVING CAMBERED WINGS WITH AN ASPECT RATIO OF 3.5 AND A TAPER RATIO OF 0.2. EFFECTS OF SWEEP ANGLE AND THICKNESS RATIO ON THE STATIC LATERAL STABILITY CHARACTERISTICS AT M = 2.01. Clyde V. Hamilton. August 1952. 37p. diagrs., tabs. (NACA RM L52E23)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL WITH LEADING-EDGE CHORD-EXTENSIONS INCORPORATED ON A 40° SWEPTBACK CIRCULAR-ARC WING OF ASPECT RATIO 4 AND TAPER RATIO 0.50. Kenneth W. Goodson and Albert G. Few, Jr November 1952. 46p. diagrs., photos., tab. (NACA RM L52I18)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS OF VARIOUS COMBINATIONS OF COMPONENTS AT A MACH NUMBER OF 1.6. Clyde V. Hamilton, Cornelius Driver, and John R. Sevier, Jr. March 1953. 48p. diagrs., photo., tabs. (NACA RM L53A14)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

STATIC LATERAL STABILITY CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. Frederick C. Grant and Ross B. Robinson. November 1953. 39p. diagrs., photo., tabs. (NACA RM L53I29a)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

AERODYNAMIC CHARACTERISTICS OF A CRUCIFORM-WING MISSILE WITH CANARD CONTROL SURFACES AND OF SOME VERY SMALL SPAN WING-BODY MISSILES AT A MACH NUMBER OF 1.41. M. Leroy Spearman and Ross B. Robinson. April 1954. 27p. diagrs., tabs. (NACA RM L54B11)

EFFECTS OF CANOPY, REVISED VERTICAL TAIL, AND A YAW-DAMPER VANE ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT A MACH NUMBER OF 2.01. Ross B. Robinson. August 1954. 29p. diagrs., tabs. (NACA RM L54F25)

STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.8 TO 1.5 OF A FREE-FLIGHT MODEL HAVING 3-PERCENT-THICK, 60° TRIANGULAR WING AND HORIZONTAL TAIL SURFACES. Rowe Chapman, Jr., and Harvey A. Wallskog. August 1954. 30p. diagrs., photos., tab. (NACA RM L54G23a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.61 OF THE COMPLETE CONFIGURATION EQUIPPED WITH SPOILERS. Clyde V. Hamilton and Cornelius Driver. September 1954. 28p. diagrs. (NACA RM L54F15)

LOW-SPEED MEASUREMENT OF STATIC STABILITY AND DAMPING DERIVATIVES OF A 60° DELTA-WING MODEL FOR ANGLES OF ATTACK OF 0° TO 90°. Donald E. Hewes. September 1954. 30p. diagrs., photo., tab. (NACA RM L54G22a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. AERODYNAMIC CHARACTERISTICS OF THE CONFIGURATION EQUIPPED WITH A CANARD CONTROL SURFACE AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 22p. diagrs., photo., tab. (NACA RM L54H19)

LATERAL MOTIONS ENCOUNTERED WITH THE DOUGLAS D-558-II ALL-ROCKET RESEARCH AIRPLANE DURING EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Herman O. Ankenbruck and Chester H. Wolowicz. December 1954. 32p. diagrs., photos., tab. (NACA RM H54I27)

LOW-SPEED MEASUREMENTS OF ROLLING AND YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Joseph L. Johnson, Jr. December 1954. 17p. diagrs., tab. (NACA RM L54G27)

PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF SOME ASPECTS OF THE AERODYNAMIC PROBLEMS ASSOCIATED WITH MISSILES CARRIED EXTERNALLY IN POSITIONS NEAR AIRPLANE WINGS. William J. Alford, Jr., H. Norman Silvers, and Thomas J. King, Jr. December 1954. 30p. diagrs., photos., tab. (NACA RM L54J20)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

INVESTIGATION OF THE LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION AT MACH NUMBERS FROM 0.6 TO 1.1 BY MEANS OF A ROCKET-PROPELLED MODEL. Jesse L. Mitchell and Robert F. Peck. February 1955. 37p. diagrs., photo., tabs. (NACA RM L54L20)

THE ROLLING MOMENT DUE TO SIDESLIP OF SWEPT WINGS AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and William C. Sleeman, Jr. March 1955. 81p. diagrs., photos., tabs. (NACA RM L54L01)

EXPLORATORY INVESTIGATION OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE IDENTICAL TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. April 1955. 25p. diagrs., photos. (NACA RM A55C28)

LATERAL STABILITY CHARACTERISTICS AT LOW LIFT BETWEEN MACH NUMBERS OF 0.85 AND 1.15 OF A ROCKET-PROPELLED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Allen B. Henning. April 1955. 50p. diagrs., photos., tabs. (NACA RM L55A31)

COMPARISON OF THE STATIC STABILITY OF A 68.7° DELTA-WING MODEL WITH DIHEDRAL AND A TWISTED AND CAMBERED WING MODEL OF THE SAME PLAN FORM. John W. Paulson. April 1955. 18p. diagrs., tab. (NACA RM L55B11)

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AS MEASURED IN FLIGHT. Thomas R. Sisk and Duane O. Muhleman. May 1955. 55p. diagrs., photos., tabs. (NACA RM H55A17)

ADDITIONAL MEASUREMENTS OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. July 1955. 31p. diagrs. (NACA RM A55F02a)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE LOW-SPEED STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. July 1955. 62p. diagrs., photos., tabs. (NACA RM H55E31a)

FLIGHT MEASUREMENTS OF THE LATERAL RESPONSE CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman. August 1955. 37p. diagrs., tabs. (NACA RM H55E26)

WIND-TUNNEL MEASUREMENTS OF THE DYNAMIC CROSS DERIVATIVE $C_{l_r} - C_{l_{\dot{\beta}}}$ (ROLLING MOMENT DUE TO YAWING VELOCITY AND TO ACCELERATION IN SIDESLIP) OF THE DOUGLAS D-558-II AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS INCLUDING DESCRIPTION OF THE TECHNIQUE. William B. Boatright. November 1955. 57p. diagrs., photos. (NACA RM L55H16)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON AN 80° DELTA-WING MISSILE. Thomas R. Turner and Raymond D. Vogler. November 1955. 32p. diagrs. (NACA RM L55H22)

EFFECT OF LARGE NEGATIVE DIHEDRAL OF THE HORIZONTAL TAIL ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A SWEPT-WING CONFIGURATION AT TRANSONIC SPEEDS. Donald D. Arabian. January 1956. 24p. diagrs., photos. (NACA RM L55I20)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF FUSELAGE CROSS-SECTION SHAPE AND WING HEIGHT ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL HAVING A 45° SWEPT WING. Thomas J. King, Jr. February 1956. 61p. diagrs., photo. (NACA RM L55J25)

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AN EXPERIMENTAL STUDY AT HIGH SUBSONIC SPEEDS OF SEVERAL TAIL CONFIGURATIONS ON A MODEL WITH AN UNSWEPT WING. William C. Sleeman, Jr. April 1956. 67p. diagrs., photos. (NACA RM L56A06a)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF STORE AND HORIZONTAL-TAIL LOADS AND SOME EFFECTS OF FUSELAGE-AFTERBODY MODIFICATIONS ON A SWEPT-WING FIGHTER AIRPLANE. Joseph M. Hallissy, Jr., and Louis Kudlacik. April 1956. 79p. diagrs., photos. (NACA RM L56A26)

LOW-SPEED MEASUREMENTS OF STATIC STABILITY, DAMPING IN YAW, AND DAMPING IN ROLL OF A DELTA, A SWEPT, AND AN UNSWEPT WING FOR ANGLES OF ATTACK FROM 0° TO 90°. Joseph L. Johnson, Jr. April 1956. 19p. diagrs., tabs. (NACA RM L56B01)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF HORIZONTAL-TAIL LOCATION ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING A SWEPTBACK WING IN A HIGH LOCATION. H. Norman Silvers and Thomas J. King, Jr. April 1956. 46p. diagrs., tab. (NACA RM L56B10)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS AT COMBINED ANGLES OF PITCH AND SIDESLIP FOR MACH NUMBER 2.01. Cornelius Driver and Clyde V. Hamilton. April 1956. 67p. diagrs., photo., tabs. (NACA RM L56B21)

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SOME EFFECTS OF WING FENCES ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA WING OSCILLATING CONTINUOUSLY IN YAW. Donald R. Riley. July 1956. 29p. diagrs., photos., tab. (NACA RM L56D13)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF JET, SPOILER, AND AILERON CONTROLS ON A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Raymond D. Vogler. July 1956. 52p. diagrs., photo., tabs. (NACA RM L56E25)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING THICKNESS ON THE STATIC LONGITUDINAL AND LATERAL STABILITY OF UNSWEPT WINGS OF ASPECT RATIO 3 AT HIGH SUBSONIC SPEEDS. William C. Hayes, Jr., and Edward C. Polhamus. August 1956. 43p. diagrs., photos. (NACA RM L56E30a)

EFFECT OF WING HEIGHT AND DIHEDRAL ON THE LATERAL STABILITY CHARACTERISTICS AT LOW LIFT OF A 45° SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM TIME-VECTOR ANALYSES OF ROCKET-PROPELLED-MODEL FLIGHTS AT MACH NUMBERS FROM 0.7 TO 1.3. Clarence L. Gillis and Rowe Chapman, Jr. September 1956. 70p. diagrs., photos., tabs. (NACA RM L56E17)

INVESTIGATION OF SPOILER-SLOT-DEFLECTOR AILERONS AND OTHER SPOILER AILERONS ON A 45° SWEPTBACK-WING—FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., Charles F. Whitcomb, and James W. Schmeer. September 1956. 59p. diagrs., tab. (NACA RM L56F15)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

A LOW-SPEED INVESTIGATION OF A HIGH-LIFT LATERAL-CONTROL DEVICE CONSISTING OF A SPOILER-SLOT-DEFLECTOR AND A TRAILING-EDGE FLAP ON A TAPERED 45° SWEPTBACK WING. Alexander D. Hammond and Jarrett K. Huffman. October 1956. 21p. diagrs. (NACA RM L56H31)

FORCE TEST RESULTS FOR BODY-MOUNTED LATERAL CONTROLS AND SPEED BRAKES ON A 45° SWEPT-WING MODEL AT MACH NUMBERS FROM 0.80 TO 0.98. F. E. West, Jr., and Chris C. Critzos. December 1956. 32p. diagrs., photos., tab. (NACA RM L56I05)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

EXPERIMENTAL DETERMINATION AT SUBSONIC SPEEDS OF THE OSCILLATORY AND STATIC LATERAL STABILITY DERIVATIVES OF A SERIES OF DELTA WINGS WITH LEADING-EDGE SWEEP FROM 30° TO 86.5°. William Letko. April 1957. 38p. diagrs., photos., tab. (NACA RM L57A30)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. II - LATERAL AND DIRECTIONAL CHARACTERISTICS. Howard F. Savage and Bruce E. Tinling. August 1957. 82p. diagrs., photo., tabs. (NACA TN 4042. Supersedes RM A55B11)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 45° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. David F. Thomas, Jr., and Walter D. Wolhart. September 1957. 30p. diagrs., photos., tabs. (NACA TN 4077)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. October 1957. 25p. diagrs., photos. (NACA TN 4174. Supersedes RM L53B25a)

EXPERIMENTAL INVESTIGATION OF THE LATERAL TRIM OF A WING-PROPELLER COMBINATION AT ANGLES OF ATTACK UP TO 90° WITH ALL PROPELLERS TURNING IN THE SAME DIRECTION. William A. Newsom, Jr. January 1958. 27p. diagrs. (NACA TN 4190)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. January 1958. 45p. diagrs., photos., tab. (NACA TN 4193. Supersedes RM L54D09)

LOW-SUBSONIC INVESTIGATION TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND EFFECTIVENESS OF SPOILERS ON A THIN, LOW-ASPECT-RATIO, UNSWEPT, UNTAPERED, SEMI-SPAN WING AND ON THE WING WITH LEADING- AND TRAILING-EDGE FLAPS. Delwin R. Croom. April 1958. 133p. diagrs., tabs. (NACA RM L58B05)

AERODYNAMIC RESEARCH ON FUSELAGES WITH RECTANGULAR CROSS SECTION. (Aerodynamische Untersuchungen an Rümpfen mit rechteckähnlichem Querschnitt.) K. Maruhn. July 1958. 37p. diagrs. (NACA TM 1414. Translation from Jahrbuch 1942 der deutschen Luftfahrtforschung, p. 263-279.)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF SPOILER LOCATION, SPOILER SIZE, AND FUSELAGE NOSE SHAPE ON DIRECTIONAL CHARACTERISTICS OF A MODEL OF A TANDEM-ROTOR HELICOPTER FUSELAGE. James L. Williams. July 1958. 44p. diagrs., photos., tab. (NACA TN 4305)

LOW-SPEED EXPERIMENTAL DETERMINATION OF THE EFFECTS OF LEADING-EDGE RADIUS AND PROFILE THICKNESS ON STATIC AND OSCILLATORY LATERAL STABILITY DERIVATIVES FOR A DELTA WING WITH 60° OF LEADING-EDGE SWEEP. Herman S. Fletcher. July 1958. 45p. diagrs., photos., tabs. (NACA TN 4341)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 60° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. Walter D. Wolhart and David F. Thomas, Jr. September 1958. 41p. diagrs., tabs. (NACA TN 4397)

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LATERAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Kenneth W. Goodson and Paul Comisarow. October 17, 1947. 72p. diagrs., photos., tab. (NACA RM L7G31)

SUPERSONIC-TUNNEL TESTS OF TWO SUPERSONIC AIRPLANE MODEL CONFIGURATIONS. Macon C. Ellis, Jr., Lowell E. Hasel, and Carl E. Grigsby. December 31, 1947. 49p. diagrs., photos., tab. (NACA RM L7J15)

FLIGHT TESTS AT TRANSONIC AND SUPERSONIC SPEEDS OF AN AIRPLANE-LIKE CONFIGURATION WITH THIN STRAIGHT SHARP-EDGE WINGS AND TAIL SURFACES. Clarence L. Gillis and Jesse L. Mitchell. January 5, 1949. 37p. diagrs., photos., tab. (NACA RM L8K04a)

INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A MODEL OF A FIGHTER AIRPLANE WITHOUT A HORIZONTAL TAIL AND EQUIPPED WITH EITHER SINGLE OR TWIN VERTICAL TAILS. John W. Draper and Robert W. Rose. November 15, 1949. 20p. diagrs., photos., tab. (NACA RM L9J07a)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

PRELIMINARY RESULTS OF THE FLIGHT INVESTIGATION BETWEEN MACH NUMBERS OF 0.80 AND 1.36 OF A ROCKET-POWERED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Homer P. Mason. October 31, 1950. 30p. diagrs., photos., tab. (NACA RM L50H29a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LATERAL CONTROL CHARACTERISTICS AT MACH NUMBERS OF 1.40 AND 1.59. Ross B. Robinson. November 10, 1950. 40p. diagrs., photos., tabs. (NACA RM L50I11)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION USING ROCKET-PROPELLED MODELS. PRELIMINARY RESULTS AT MACH NUMBERS FROM 0.65 TO 1.25. Jesse L. Mitchell and Robert F. Peck. December 1, 1950. 30p. diagrs., photos. (NACA RM L50J03)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

A WIND-TUNNEL INVESTIGATION OF THE STATIC STABILITY CHARACTERISTICS OF A 1/8-SCALE EJECTABLE PILOT-SEAT COMBINATION AT A MACH NUMBER OF 0.8. Floravante Visconti and Robert J. Nuber. December 1951. 29p. diagrs., photos. (NACA RM L51H08)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

EXPERIMENTAL INVESTIGATION OF THE STATIC AERODYNAMIC AND DYNAMIC DAMPING-IN-ROLL CHARACTERISTICS OF AN 8-CM AIRCRAFT ROCKET WITH SOLID AND SLOTTED FINS. Robert S. Chubb. June 1952. ii, 43p. diagrs., photo. (NACA RM A52C04)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL WITH LEADING-EDGE CHORD-EXTENSIONS INCORPORATED ON A 40° SWEPTBACK CIRCULAR-ARC WING OF ASPECT RATIO 4 AND TAPER RATIO 0.50. Kenneth W. Goodson and Albert G. Few, Jr. November 1952. 46p. diagrs., photos., tab. (NACA RM L52I18)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS OF VARIOUS COMBINATIONS OF COMPONENTS AT A MACH NUMBER OF 1.6. Clyde V. Hamilton, Cornelius Driver, and John R. Sevier, Jr. March 1953. 48p. diagrs., photo., tabs. (NACA RM L53A14)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A 52.5° DELTA WING AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. March 1954. 31p. diagrs., photos. (NACA RM L54A20)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54F12)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.61 OF THE COMPLETE CONFIGURATION EQUIPPED WITH SPOILERS. Clyde V. Hamilton and Cornelius Driver. September 1954. 28p. diagrs. (NACA RM L54F15)

LOW-SPEED MEASUREMENT OF STATIC STABILITY AND DAMPING DERIVATIVES OF A 60° DELTA-WING MODEL FOR ANGLES OF ATTACK OF 0° TO 90°. Donald E. Hewes. September 1954. 30p. diagrs., photo., tab. (NACA RM L54G22a)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A DIAMOND-PLAN-FORM WING OF ASPECT RATIO 3.08 AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1954. 37p. diagrs., photos. (NACA RM L54G27a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. AERODYNAMIC CHARACTERISTICS OF THE CONFIGURATION EQUIPPED WITH A CANARD CONTROL SURFACE AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 22p. diagrs., photo., tab. (NACA RM L54H19)

LOW-SPEED MEASUREMENTS OF ROLLING AND YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Joseph L. Johnson, Jr. December 1954. 17p. diagrs., tab. (NACA RM L54G27)

EXPLORATORY INVESTIGATION OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE IDENTICAL TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. April 1955. 25p. diagrs., photos. (NACA RM A55C28)

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AS MEASURED IN FLIGHT. Thomas R. Sisk and Duane O. Muhleman. May 1955. 55p. diagrs., photos., tabs. (NACA RM H55A17)

ADDITIONAL MEASUREMENTS OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. July 1955. 31p. diagrs. (NACA RM A55F02a)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

A DISCUSSION OF RECENT WIND-TUNNEL STUDIES RELATING TO THE PROBLEM OF ESTIMATING VERTICAL- AND HORIZONTAL-TAIL LOADS. Richard E. Kuhn, Joseph M. Hallissy, Jr., and Ralph W. Stone, Jr. July 1955. 20p. diagrs., photos. (NACA RM L55E16a)

FLIGHT MEASUREMENTS OF THE LATERAL RESPONSE CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman. August 1955. 37p. diagrs., tabs. (NACA RM H55E26)

FLIGHT MEASUREMENTS OF DIRECTIONAL STABILITY TO A MACH NUMBER OF 1.48 FOR AN AIRPLANE TESTED WITH THREE DIFFERENT VERTICAL TAIL CONFIGURATIONS. Hubert M. Drake, Thomas W. Finch, and James R. Peele. October 1955. 22p. diagrs., photos., tab. (NACA RM H55G26)

EFFECT OF LARGE NEGATIVE DIHEDRAL OF THE HORIZONTAL TAIL ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A SWEPT-WING CONFIGURATION AT TRANSONIC SPEEDS. Donald D. Arabian. January 1956. 24p. diagrs., photos. (NACA RM L55I20)

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AN EXPERIMENTAL STUDY AT HIGH SUBSONIC SPEEDS OF SEVERAL TAIL CONFIGURATIONS ON A MODEL WITH AN UNSWEPT WING. William C. Sleeman, Jr. April 1956. 67p. diagrs., photos. (NACA RM L56A06a)

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WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS AT COMBINED ANGLES OF PITCH AND SIDESLIP FOR MACH NUMBER 2.01. Cornelius Driver and Clyde V. Hamilton. April 1956. 67p. diagrs., photo., tabs. (NACA RM L56B21)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

THE EFFECT OF CONICAL CAMBER ON THE STATIC LONGITUDINAL, LATERAL, AND DIRECTIONAL CHARACTERISTICS OF A 45° SWEPTBACK WING AT MACH NUMBERS UP TO 0.96. Robert I. Sammonds and Robert M. Reynolds. July 1956. 64p. diagrs., tabs. (NACA RM A56D02)

LOW-SPEED WIND-TUNNEL RESULTS FOR A THIN ASPECT-RATIO-1.85 POINTED-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAPS. Albert E. Brown. July 1956. 31p. diagrs., tabs. (NACA RM L56D03)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING THICKNESS ON THE STATIC LONGITUDINAL AND LATERAL STABILITY OF UNSWEPT WINGS OF ASPECT RATIO 3 AT HIGH SUBSONIC SPEEDS. William C. Hayes, Jr., and Edward C. Polhamus. August 1956. 43p. diagrs., photos. (NACA RM L56E30a)

EFFECT OF WING HEIGHT AND DIHEDRAL ON THE LATERAL STABILITY CHARACTERISTICS AT LOW LIFT OF A 45° SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM TIME-VECTOR ANALYSES OF ROCKET-PROPELLED-MODEL FLIGHTS AT MACH NUMBERS FROM 0.7 TO 1.3. Clarence L. Gillis and Rowe Chapman, Jr. September 1956. 70p. diagrs., photos., tabs. (NACA RM L56E17)

STATIC STABILITY CHARACTERISTICS OF A CAMBERED-DELTA-WING MODEL AT HIGH SUBSONIC SPEEDS. William C. Moseley, Jr. October 1956. 35p. diagrs., photos. (NACA RM L56H13)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

AN ANALYSIS OF VERTICAL-TAIL LOADS MEASURED IN FLIGHT ON A SWEPT-WING BOMBER AIRPLANE. William A. McGowan and T. V. Cooney. May 1957. 53p. diagrs., photo., tabs. (NACA RM L57B19)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. II - LATERAL AND DIRECTIONAL CHARACTERISTICS. Howard F. Savage and Bruce E. Tinling. August 1957. 82p. diagrs., photo., tabs. (NACA TN 4042. Supersedes RM A55B11)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 45° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. David F. Thomas, Jr., and Walter D. Wolhart. September 1957. 30p. diagrs., photos., tabs. (NACA TN 4077)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. October 1957. 25p. diagrs., photos. (NACA TN 4174. Supersedes RM L53B25a)

EFFECT OF FLOW INCIDENCE AND REYNOLDS NUMBER ON LOW-SPEED AERODYNAMIC CHARACTERISTICS OF SEVERAL NONCIRCULAR CYLINDERS WITH APPLICATIONS TO DIRECTIONAL STABILITY AND SPINNING. Edward C. Polhamus. January 1958. 54p. diagrs., photo., tab. (NACA TN 4176)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. January 1958. 45p. diagrs., photos., tab. (NACA TN 4193. Supersedes RM L54D09)

AERODYNAMIC RESEARCH ON FUSELAGES WITH RECTANGULAR CROSS SECTION. (Aerodynamische Untersuchungen an Rümpfen mit rechteckähnlichem Querschnitt.) K. Maruhn. July 1958. 37p. diagrs. (NACA TM 1414. Translation from Jahrbuch 1942 der deutschen Luftfahrtforschung, p. 263-279.)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF SPOILER LOCATION, SPOILER SIZE, AND FUSELAGE NOSE SHAPE ON DIRECTIONAL CHARACTERISTICS OF A MODEL OF A TANDEM-ROTOR HELICOPTER FUSELAGE. James L. Williams. July 1958. 44p. diagrs., photos., tab. (NACA TN 4305)

LOW-SPEED EXPERIMENTAL DETERMINATION OF THE EFFECTS OF LEADING-EDGE RADIUS AND PROFILE THICKNESS ON STATIC AND OSCILLATORY LATERAL STABILITY DERIVATIVES FOR A DELTA WING WITH 60° OF LEADING-EDGE SWEEP. Herman S. Fletcher. July 1958. 45p. diagrs., photos., tabs. (NACA TN 4341)

STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS AT LOW SPEED OF 60° SWEPTBACK-MIDWING MODELS HAVING WINGS WITH AN ASPECT RATIO OF 2, 4, OR 6. Walter D. Wolhart and David F. Thomas, Jr. September 1958. 41p. diagrs., tabs. (NACA TN 4397)

(1.8.1.2) DYNAMIC

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

DERIVATION OF THE EQUATIONS OF MOTION OF A SYMMETRICAL WING-TIP-COUPLED AIRPLANE CONFIGURATION WITH ROTATIONAL FREEDOM AT THE JUNCTURES. Albert A. Schy. October 1951. 45p. diagrs. (NACA RM L51G12)

THEORETICAL INVESTIGATION OF THE PERFORMANCE OF PROPORTIONAL NAVIGATION GUIDANCE SYSTEMS - EFFECT OF MISSILE CONFIGURATION ON THE SPEED OF RESPONSE. Marvin Abramovitz. January 1953. 20p. diagrs., tabs. (NACA RM A52J22)

DAMPING IN PITCH OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Murray Tobak. April 1953. ii, 107p. diagrs. (NACA RM A52L04a)

A THEORETICAL STUDY OF THE EFFECT OF CONTROL-DEFLECTION AND CONTROL-RATE LIMITATIONS ON THE NORMAL ACCELERATION AND ROLL RESPONSE OF A SUPERSONIC INTERCEPTOR. Howard F. Matthews and Stanley F. Schmidt. April 1953. 28p. photos., diagrs., tabs. (NACA RM A53B11)

AN EXPERIMENTAL INVESTIGATION AT SUBSONIC AND SUPERSONIC SPEEDS OF THE TORSIONAL DAMPING CHARACTERISTICS OF A CONSTANT-CHORD CONTROL SURFACE OF AN ASPECT RATIO 2 TRIANGULAR WING. David E. Reese, Jr. July 1953. 32p. diagrs., photos., tab. (NACA RM A53D27)

EFFECT OF AUTOMATIC STABILIZATION ON THE SIDESLIP AND ANGLE-OF-ATTACK DISTURBANCES IN ROLLING MANEUVERS. Ordway B. Gates, Jr., Joseph Weil, and C. H. Woodling. July 1955. 18p. diagrs. (NACA RM L55E25b)

ANALYSIS OF EFFECTS OF AIRPLANE CHARACTERISTICS AND AUTOPILOT PARAMETERS ON A ROLL-COMMAND SYSTEM WITH AILERON RATE AND DEFLECTION LIMITING. Albert A. Schy and Ordway B. Gates, Jr. September 1955. 68p. diagrs., tab. (NACA RM L55E18)

ANALYSIS OF AN AUTOMATIC CONTROL TO PREVENT ROLLING DIVERGENCE. William H. Phillips. April 1956. 31p. diagrs., tab. (NACA RM L56A04)

AN EVALUATION OF AN AEROMECHANICAL METHOD OF MINIMIZING SERVO-MISSILE TRANSFER-FUNCTION VARIATIONS WITH FLIGHT CONDITION. Martin L. Nason. April 1956. 41p. diagrs., tabs. (NACA RM L56A31)

SOME NOTES ON THE VIOLENT LATERAL-LONGITUDINAL COUPLING MOTIONS OF THE DOUGLAS X-3 AIRPLANE IN AILERON ROLLS. Ralph W. Stone, Jr. May 1956. 35p. diagrs., tab. (NACA RM L56C15)

AN ANALOG COMPUTER STUDY OF SEVERAL STABILITY AUGMENTATION SCHEMES DESIGNED TO ALLEVIATE ROLL-INDUCED INSTABILITY. Brent Y. Creer. February 1957. 50p. diagrs., tab. (NACA RM A56H30)

STATUS OF SPIN RESEARCH FOR RECENT AIRPLANE DESIGNS. Anshal I. Neihouse, Walter J. Klinar, and Stanley H. Scher. August 1957. ii, 98p. diagrs., photos., tabs. (NACA RM L57F12)

MOTION OF A BALLISTIC MISSILE ANGULARLY MISALINED WITH THE FLIGHT PATH UPON ENTERING THE ATMOSPHERE AND ITS EFFECT UPON AERODYNAMIC HEATING, AERODYNAMIC LOADS, AND MISS DISTANCE. H. Julian Allen. October 1957. 66p. diagrs., tabs. (NACA TN 4048. Supersedes RM A56F15)

FLIGHT INVESTIGATION OF THE TRANSONIC LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Jack Fischel, Euclid C. Holleman, and Robert A. Tremant. December 1957. 61p. diagrs., photos., tab. (NACA RM H57I05)

TRANSITION-FLIGHT INVESTIGATION OF A FOUR-ENGINE-TRANSPORT VERTICAL-TAKE-OFF AIRPLANE MODEL UTILIZING A LARGE FLAP AND EXTENSIBLE VANES FOR REDIRECTING THE PROPELLER SLIPSTREAM. Louis P. Tosti. December 1957. 35p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4131)

(1.8.1.2.1)
Longitudinal

WIND-TUNNEL INVESTIGATION OF THE STABILITY OF THE JETTISONABLE NOSE SECTION OF THE XS-2 AIRPLANE. Stanley H. Scher and Roscoe H. Goodwin. October 14, 1948. 19p. diagrs., photos., tabs. (NACA RM L8I14)

INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A MODEL OF A FIGHTER AIRPLANE WITHOUT A HORIZONTAL TAIL AND EQUIPPED WITH EITHER SINGLE OR TWIN VERTICAL TAILS. John W. Draper and Robert W. Rose. November 15, 1949. 20p. diagrs., photos., tab. (NACA RM L9J07a)

PRELIMINARY RESULTS OF THE FLIGHT INVESTIGATION BETWEEN MACH NUMBERS OF 0.80 AND 1.36 OF A ROCKET-POWERED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Homer P. Mason. October 31, 1950. 30p. diagrs., photos., tab. (NACA RM L50H29a)

DETERMINATION OF LONGITUDINAL STABILITY OF THE BELL X-1 AIRPLANE FROM TRANSIENT RESPONSES AT MACH NUMBERS UP TO 1.12 AT LIFT COEFFICIENTS OF 0.3 AND 0.6. Ellwyn E. Angle and Euclid C. Holleman. November 7, 1950. 22p diagrs. (NACA RM L50I06a)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION USING ROCKET-PROPELLED MODELS. PRELIMINARY RESULTS AT MACH NUMBERS FROM 0.65 TO 1.25. Jesse L. Mitchell and Robert F. Peck. December 1, 1950. 30p. diagrs., photos. (NACA RM L50J03)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

THE EFFECT OF VARIOUS MISSILE CHARACTERISTICS ON AIRFRAME FREQUENCY RESPONSE. Howard F. Matthews and Walter E. McNeill. January 1952. 16p. diagrs. (NACA RM A51L17a)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

PRELIMINARY INVESTIGATION OF THE LOW-AMPLITUDE DAMPING IN PITCH OF TAILLESS DELTA- AND SWEPT-WING CONFIGURATIONS AT MACH NUMBERS FROM 0.7 TO 1.35. Charles T. D'Aiutolo and Robert N. Parker. August 1952. 27p. diagrs., photos., tab. (NACA RM L52G09)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

STABILITY OF BODIES OF REVOLUTION HAVING FINENESS RATIOS SMALLER THAN 1.0 AND HAVING ROUNDED FRONTS AND BLUNT BASES. Stanley H. Scher and James S. Bowman, Jr. January 1953. 23p. diagrs., tabs. (NACA RM L52L08)

DAMPING IN PITCH OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Murray Tobak. April 1953. ii, 107p. diagrs. (NACA RM A52L04a)

A ROCKET-MODEL INVESTIGATION OF THE LONGITUDINAL STABILITY, LIFT, AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION WITH HORIZONTAL TAIL OF ASPECT RATIO 4.33. Robert F. Peck and James A. Hollinger. August 1953. 33p. diagrs., photos. (NACA RM L53F19a)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

A FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.67 TO 1.81 OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE CONFIGURATION HAVING AN ALL-MOVABLE TAIL. Martin T. Moul and Hal T. Baber, Jr. October 1953. 43p. diagrs., photo. (NACA RM L53G29)

INVESTIGATION AT MACH NUMBERS OF 1.62, 1.93, AND 2.41 OF THE EFFECT OF OSCILLATION AMPLITUDE ON THE DAMPING IN PITCH OF DELTA-WING–BODY COMBINATIONS. Arthur Henderson, Jr. October 1953. 28p. diagrs., photos. (NACA RM L53H25)

THE INTERPRETATION OF NONLINEAR PITCHING MOMENTS IN RELATION TO THE PITCH-UP PROBLEM. George S. Campbell and Joseph Weil. October 1953. 32p. diagrs., tabs. (NACA RM L53I02)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A 52.5° DELTA WING AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. March 1954. 31p. diagrs., photos. (NACA RM L54A20)

ROCKET-POWERED MODEL INVESTIGATION OF LIFT, DRAG, AND STABILITY OF A BODY-TAIL CONFIGURATION AT MACH NUMBERS FROM 0.8 TO 2.3 AND ANGLES OF ATTACK BETWEEN ±6.5°. Warren Gillespie, Jr., and Albert E. Dietz. April 1954. 42p. diagrs., photos., tabs. (NACA RM L54C04)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF TAILLESS DELTA-WING–BODY COMBINATIONS AT MACH NUMBERS FROM 0.80 TO 1.35 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. June 1954. 34p. diagrs., photos., tab. (NACA RM L54D29)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A DIAMOND-PLAN-FORM WING OF ASPECT RATIO 3.08 AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1954. 37p. diagrs., photos. (NACA RM L54G27a)

ANALYTICAL STUDY OF THE EFFECT OF CENTER-OF-GRAVITY POSITION ON THE RESPONSE TO LONGITUDINAL CONTROL IN LANDING APPROACHES OF A SWEPT-WING AIRPLANE OF LOW ASPECT RATIO HAVING NO HORIZONTAL TAIL. Ralph W. Stone, Jr. October 1954. 35p. diagrs., tabs. (NACA RM L54H04)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF FOUR TAILLESS SWEPT WING-BODY COMBINATIONS AT MACH NUMBERS FROM 0.85 TO 1.30 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. November 1954. 34p. diagrs., photos., tab. (NACA RM L54I10)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS AND SMALL ANGLES OF ATTACK OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 3 WITH AN NACA 64A006 AIRFOIL SECTION. George H. Holdaway. January 1955. 32p. diagrs., photo., tab. (NACA RM A54I17)

TRANSONIC LONGITUDINAL AERODYNAMIC EFFECTS OF SWEEPING UP THE REAR OF THE FUSELAGE OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING NO HORIZONTAL TAIL. James H. Parks. January 1955. 30p. diagrs., photo. (NACA RM L54K12)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Loren G. Bright. March 1955. 40p. diagrs., photos., tabs. (NACA RM A54L27)

A THEORETICAL INVESTIGATION OF THE EFFECT OF AUXILIARY DAMPING ON THE LONGITUDINAL RESPONSE OF A TRANSONIC BOMBER CONFIGURATION IN FLIGHT THROUGH CONTINUOUS TURBULENCE. T. F. Bridgland, Jr. March 1955. 26p. diagrs., tab. (NACA RM L54K15a)

STUDY OF SOME EFFECTS OF STRUCTURAL FLEXIBILITY ON THE LONGITUDINAL MOTIONS AND LOADS AS OBTAINED FROM FLIGHT MEASUREMENTS OF A SWEPT-WING BOMBER. James J. Donegan and Carl R. Huss. May 1955. 53p. diagrs., tabs. (NACA RM L54L16)

FLIGHT EXPERIENCE OF INERTIA COUPLING IN ROLLING MANEUVERS. Joseph Weil, Ordway B. Gates, Jr., Richard D. Banner, and Albert E. Kuhl. July 1955. 12p. diagrs. (NACA RM H55E17b)

(1) AERODYNAMICS

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 2. Maurice D. White. September 1955. 39p. diagrs., photo., tabs. (NACA RM A55F21)

FREE-FLIGHT INVESTIGATION TO OBTAIN DRAG-AT-LIFT AND STABILITY DATA FOR A 60° DELTA-WING–BODY CONFIGURATION OVER A MACH NUMBER RANGE OF 1.3 TO 1.6. Clement J. Welsh. October 1955. 23p. diagrs., photo., tab. (NACA RM L55G14)

A THEORETICAL ANALYSIS OF A SIMPLE AERODYNAMIC DEVICE TO IMPROVE THE LONGITUDINAL DAMPING OF A CRUCIFORM MISSILE CONFIGURATION AT SUPERSONIC SPEEDS. James E. Clements. October 1955. 36p. diagrs., tab. (NACA RM L55H31)

EXPERIMENTAL RESULTS FROM A TEST IN ROUGH AIR AT HIGH SUBSONIC SPEEDS OF A TAILLESS ROCKET MODEL HAVING CRUCIFORM TRIANGULAR WINGS, AND A NOTE ON THE CALCULATION OF MEAN SQUARE LOADS OF AIRCRAFT IN CONTINUOUS ROUGH AIR. A. James Vitale and Jesse L. Mitchell. April 1956. 25p. diagrs., photo., tab. (NACA RM L55L28)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

AN EVALUATION OF AN AEROMECHANICAL METHOD OF MINIMIZING SERVO-MISSILE TRANSFER-FUNCTION VARIATIONS WITH FLIGHT CONDITION. Martin L. Nason. April 1956. 41p. diagrs., tabs. (NACA RM L56A31)

RESULTS FROM AN INVESTIGATION IN ROUGH AIR AT MACH NUMBERS FROM 0.84 TO 1.67 OF A TAILLESS ROCKET MODEL HAVING 60° TRIANGULAR WINGS. A. James Vitale. July 1956 16p. diagrs., photo., tab. (NACA RM L56F07a)

DYNAMIC MODEL INVESTIGATION OF TWO TAIL-SITTER VERTICALLY RISING AIRPLANES TO DETERMINE THE ALTITUDE REQUIRED TO APPROACH NORMAL-FLIGHT CONDITIONS AFTER POWER FAILURE IN HOVERING FLIGHT. Walter J. Klinar and L. Faye Wilkes. November 1956. 15p. diagrs., tabs. (NACA RM L56H29a)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

DETERMINATION OF LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS FROM FREE-FLIGHT MODEL TESTS WITH RESULTS AT TRANSONIC SPEEDS FOR THREE AIRPLANE CONFIGURATIONS. Clarence L. Gillis and Jesse L. Mitchell 1957. ii, 28p. diagrs., photos., tabs. (NACA Rept. 1337)

HORIZONTAL-TAIL PARAMETERS AS DETERMINED FROM FLIGHT-TEST TAIL LOADS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. January 1957. 42p. diagrs., photos., tabs. (NACA RM L56J02)

FLIGHT-TEST INVESTIGATION ON THE LANGLEY CONTROL-LINE FACILITY OF A MODEL OF A PROPELLER-DRIVEN TAIL-SITTER-TYPE VERTICAL-TAKE-OFF AIRPLANE WITH DELTA WING DURING RAPID TRANSITIONS. Robert O. Schade. August 1957. 19p. diagrs., photo., tab. (NACA TN 4070)

ON THE MINIMIZATION OF AIRPLANE RESPONSES TO RANDOM GUSTS. Murray Tobak. October 1957. 71p. diagrs. (NACA TN 3290)

AN ANALYTICAL INVESTIGATION OF THE GUST-ALLEVIATING PROPERTIES OF A SIMPLE PITCH DAMPER. Norman L. Crabill. December 1957. 47p. diagrs., tab. (NACA TN 4173)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. December 1957. 29p. diagrs., photo., tabs. (NACA TN 4192. Supersedes RM L54C02)

A SIMPLIFIED METHOD FOR APPROXIMATING THE TRANSIENT MOTION IN ANGLES OF ATTACK AND SIDESLIP DURING A CONSTANT ROLLING MANEUVER. Leonard Sternfield. 1958. ii, 11p. diagrs., tabs. (NACA Rept. 1344. Supersedes RM L56F04)

MEASURED AND PREDICTED DYNAMIC RESPONSE CHARACTERISTICS OF A FLEXIBLE AIRPLANE TO ELEVATOR CONTROL OVER A FREQUENCY RANGE INCLUDING THREE STRUCTURAL MODES. Henry A. Cole, Jr., and Euclid C. Holleman. February 1958. 81p. diagrs., photo., tabs. (NACA TN 4147)

QUALITATIVE SIMULATOR STUDY OF LONGITUDINAL STICK FORCES AND DISPLACEMENTS DESIRABLE DURING TRACKING. Stanley Faber. February 1958. 23p. diagrs., photo. (NACA TN 4202)

A THEORETICAL ANALYSIS OF THE EFFECT OF ENGINE ANGULAR MOMENTUM ON LONGITUDINAL AND DIRECTIONAL STABILITY IN STEADY ROLLING MANEUVERS. Ordway B. Gates, Jr., and C. H. Woodling. April 1958. 20p. diagrs., tab. (NACA TN 4249. Supersedes RM L55G05)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF FLIGHT CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT AIRPLANE MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP. Joseph L. Johnson, Jr. July 1958. 32p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4255)

DYNAMIC STABILITY OF VEHICLES TRAVERSING ASCENDING OR DESCENDING PATHS THROUGH THE ATMOSPHERE. Murray Tobak and H. Julian Allen. July 1958. (i), 35p. diagrs. (NACA TN 4275)

MEASUREMENTS OF THE MOTIONS OF A LARGE SWEPT-WING AIRPLANE IN ROUGH AIR. Richard H. Rhyne. September 1958. 22p. diagrs., photo., tabs. (NACA TN 4310)

APPROXIMATE METHOD FOR CALCULATING MOTIONS IN ANGLES OF ATTACK AND SIDESLIP DUE TO STEP PITCHING- AND YAWING-MOMENT INPUTS DURING STEADY ROLL. Martin T. Moul and Teresa R. Brennan. September 1958. 42p. diagrs., tabs. (NACA TN 4346)

(1.8.1.2.2)
Lateral and Directional

WIND-TUNNEL INVESTIGATION OF THE STABILITY OF THE JETTISONABLE NOSE SECTION OF THE XS-2 AIRPLANE. Stanley H. Scher and Roscoe H. Goodwin. October 14, 1948. 19p. diagrs., photos., tabs. (NACA RM L8I14)

ANALYSIS OF THE DYNAMIC-LATERAL-STABILITY CHARACTERISTICS OF THE BELL X-2 AIRPLANE AS AFFECTED BY VARIATIONS IN MASS, AERODYNAMIC, AND DIMENSIONAL PARAMETERS. W. H. Michael, Jr., and M. J. Queijo. August 10, 1949. 33p. diagrs., tabs. (NACA RM L9G13)

FLIGHT TESTS OF A MODEL HAVING SELF-SUPPORTING FUEL-CARRYING PANELS HINGED TO THE WING TIPS. Robert E. Shanks and David C. Grana. November 2, 1949. 10p. diagrs., tab. (NACA RM L9I07a)

INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A MODEL OF A FIGHTER AIRPLANE WITHOUT A HORIZONTAL TAIL AND EQUIPPED WITH EITHER SINGLE OR TWIN VERTICAL TAILS. John W. Draper and Robert W. Rose. November 15, 1949. 20p. diagrs., photos., tab. (NACA RM L9J07a)

SUPPLEMENTARY ANALYSIS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE BELL X-2 AIRPLANE AS AFFECTED BY VARIATIONS IN MASS AND AERODYNAMIC PARAMETERS. William H. Michael, Jr., and M. J. Queijo. June 26, 1950. 15p. diagrs. (NACA RM L50E08)

A PRELIMINARY FLIGHT INVESTIGATION OF THE EFFECT OF SNAKING OSCILLATIONS ON THE PILOTS' OPINIONS OF THE FLYING QUALITIES OF A FIGHTER AIRPLANE. Arnold R. Beckhardt, John A. Harper, and William L. Alford. September 26, 1950. 31p. diagrs., photos., tabs. (NACA RM L50E17a)

AN INVESTIGATION OF SINGLE-DEGREE-OF-FREEDOM SNAKING OSCILLATIONS ON A MODEL OF A HIGH-SPEED RESEARCH AIRPLANE BY THE NACA WING-FLOW METHOD. Harold I. Johnson and Stanley Faber. August 1951. 22p. diagrs., photos., tab. (NACA RM L51E14)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A HIGH-ASPECT-RATIO BOMBER MODEL WITH SELF-SUPPORTING FREE-FLOATING FUEL TANKS ATTACHED TO THE WING TIPS. Charles V. Bennett and Robert B. Cadman. August 1951. 12p. diagrs., tab. (NACA RM L51E17)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A HIGH-ASPECT-RATIO BOMBER MODEL WITH A SWEPTBACK-WING FIGHTER MODEL ATTACHED TO EACH WING TIP. Charles V. Bennett and Peter C. Boisseau. September 1952. 17p. diagrs., tabs. (NACA RM L52E08)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

A STUDY OF VISUAL INTERCEPTION ATTACKS ON A NONMANEUVERING AIRPLANE TARGET. Donald C. Cheatham, Charles W. Mathews, and John A. Harper. July 1953. 97p. diagrs., photos., tabs. (NACA RM L53E01)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.8 TO 1.5 OF A FREE-FLIGHT MODEL HAVING 3-PERCENT-THICK, 60° TRIANGULAR WING AND HORIZONTAL TAIL SURFACES. Rowe Chapman, Jr., and Harvey A. Wallskog. August 1954. 30p. diagrs., photos., tab. (NACA RM L54G23a)

LATERAL MOTIONS ENCOUNTERED WITH THE DOUGLAS D-558-II ALL-ROCKET RESEARCH AIRPLANE DURING EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Herman O. Ankenbruck and Chester H. Wolowicz. December 1954. 32p. diagrs., photos., tab. (NACA RM H54I27)

JET EFFECTS ON LONGITUDINAL TRIM OF AN AIRPLANE CONFIGURATION MEASURED AT MACH NUMBERS BETWEEN 1.2 AND 1.8. Robert F. Peck. January 1955. 17p. diagrs., photos. (NACA RM L54J29a)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

INVESTIGATION OF THE LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION AT MACH NUMBERS FROM 0.6 TO 1.1 BY MEANS OF A ROCKET-PROPELLED MODEL. Jesse L. Mitchell and Robert F. Peck. February 1955. 37p. diagrs., photo., tabs. (NACA RM L54L20)

LATERAL STABILITY CHARACTERISTICS AT LOW LIFT BETWEEN MACH NUMBERS OF 0.85 AND 1.15 OF A ROCKET-PROPELLED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Allen B. Henning. April 1955. 50p. diagrs., photos., tabs. (NACA RM L55A31)

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AS MEASURED IN FLIGHT. Thomas R. Sisk and Duane O. Muhleman. May 1955. 55p. diagrs., photos., tabs. (NACA RM H55A17)

FLIGHT EXPERIENCE OF INERTIA COUPLING IN ROLLING MANEUVERS. Joseph Weil, Ordway B. Gates, Jr., Richard D. Banner, and Albert E. Kuhl. July 1955. 12p. diagrs. (NACA RM H55E17b)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE LOW-SPEED STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. July 1955. 62p. diagrs., photos., tabs. (NACA RM H55E31a)

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FLIGHT MEASUREMENTS OF THE LATERAL RESPONSE CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman. August 1955. 37p. diagrs., tabs. (NACA RM H55E26)

FLIGHT MEASUREMENTS OF DIRECTIONAL STABILITY TO A MACH NUMBER OF 1.48 FOR AN AIRPLANE TESTED WITH THREE DIFFERENT VERTICAL TAIL CONFIGURATIONS. Hubert M. Drake, Thomas W. Finch, and James R. Peele. October 1955. 22p. diagrs., photos., tab. (NACA RM H55G26)

WIND-TUNNEL MEASUREMENTS OF THE DYNAMIC CROSS DERIVATIVE $C_{l_r} - C_{l_{\dot{\beta}}}$ (ROLLING MOMENT DUE TO YAWING VELOCITY AND TO ACCELERATION IN SIDESLIP) OF THE DOUGLAS D-558-II AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS INCLUDING DESCRIPTION OF THE TECHNIQUE. William B. Boatright. November 1955. 57p. diagrs., photos. (NACA RM L55H16)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEED OF THE ROLLING STABILITY DERIVATIVES OF A COMPLETE MODEL HAVING A CLIPPED-DELTA WING AND A HIGH HORIZONTAL TAIL. William C. Sleeman, Jr., and Albert G. Few, Jr. February 1956. 32p. diagrs., tab. (NACA RM L55K11)

SPINNING AND RELATED PROBLEMS AT HIGH ANGLES OF ATTACK FOR HIGH-SPEED AIRPLANES. Walter J. Klinar. March 1956. 8p. diagrs. (NACA RM L55L23a)

AN ANALOG STUDY OF THE RELATIVE IMPORTANCE OF VARIOUS FACTORS AFFECTING ROLL COUPLING. Joseph Weil and Richard E Day. April 1956. 81p. diagrs., photo., tabs. (NACA RM H56A06)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

SOME EFFECTS OF WING FENCES ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA WING OSCILLATING CONTINUOUSLY IN YAW. Donald R. Riley. July 1956. 29p. diagrs., photos., tab. (NACA RM L56D13)

EFFECT OF WING HEIGHT AND DIHEDRAL ON THE LATERAL STABILITY CHARACTERISTICS AT LOW LIFT OF A 45° SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM TIME-VECTOR ANALYSES OF ROCKET-PROPELLED-MODEL FLIGHTS AT MACH NUMBERS FROM 0.7 TO 1.3. Clarence L. Gillis and Rowe Chapman, Jr. September 1956. 70p. diagrs., photos., tabs. (NACA RM L56E17)

LOW-SPEED MEASUREMENT OF TAIL CONTRIBUTION TO ROLLING STABILITY DERIVATIVES AND AIR-FLOW ANGULARITY AT THE TAIL FOR AN X-TAIL MODEL IN STEADY ROLL INCLUDING SOME EFFECTS OF WING-TIP STORES. Donald R. Riley. November 1956. 28p. diagrs., photo., tab. (NACA RM L56I21)

LINEARIZED LIFTING-SURFACE AND LIFTING-LINE EVALUATIONS OF SIDEWASH BEHIND ROLLING TRIANGULAR WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt. 1957. ii, 19p. diagrs., photo. (NACA Rept. 1301. Supersedes TN 3609)

FLIGHT INVESTIGATION OF THE EFFECTIVENESS OF AN AUTOMATIC AILERON TRIM CONTROL DEVICE FOR PERSONAL AIRPLANES. William H. Phillips, Helmut A. Kuehnel, and James B. Whitten. 1957. ii, 15p. diagrs., photos. (NACA Rept. 1304. Supersedes TN 3637)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. 1957. ii, 19p. diagrs., tabs. (NACA Rept. 1321. Supersedes TN 3864.)

EXPERIMENTAL DETERMINATION AT SUBSONIC SPEEDS OF THE OSCILLATORY AND STATIC LATERAL STABILITY DERIVATIVES OF A SERIES OF DELTA WINGS WITH LEADING-EDGE SWEEP FROM 30° TO 86.5°. William Letko. April 1957. 38p. diagrs., photos., tab. (NACA RM L57A30)

A METHOD UTILIZING DATA ON THE SPIRAL, ROLL-SUBSIDENCE, AND DUTCH ROLL MODES FOR DETERMINING LATERAL STABILITY DERIVATIVES FROM FLIGHT MEASUREMENTS. Bernard B. Klawans and Jack A. White. August 1957. 38p. diagrs., tabs. (NACA TN 4066)

EFFECT OF FREQUENCY OF SIDESLIPPING MOTION ON THE LATERAL STABILITY DERIVATIVES OF A TYPICAL DELTA-WING AIRPLANE. Jacob H. Lichtenstein and James L. Williams. September 1957. 46p. diagrs., photos., tabs. (NACA RM L57F07)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF GROUND PROXIMITY AND OF SPLIT FLAPS ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL OSCILLATING IN YAW. Byron M. Jaquet. September 1957. 32p. diagrs. photos., tab. (NACA TN 4119)

A SIMPLIFIED METHOD FOR APPROXIMATING THE TRANSIENT MOTION IN ANGLES OF ATTACK AND SIDESLIP DURING A CONSTANT ROLLING MANEUVER. Leonard Sternfield. 1958. ii, 11p. diagrs., tabs. (NACA Rept. 1344. Supersedes RM L56F04)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. January 1958. 45p. diagrs., photos., tab. (NACA TN 4193. Supersedes RM L54D09)

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. January 1958. 30p. diagrs., photo., tabs. (NACA TN 4199. Supersedes RM L53F08a)

A METHOD FOR THE CALCULATION OF THE LATERAL RESPONSE OF AIRPLANES TO RANDOM TURBULENCE. John M. Eggleston and William H. Phillips. February 1958. 34p. diagrs., tab. (NACA TN 4196)

A THEORETICAL ANALYSIS OF THE EFFECT OF ENGINE ANGULAR MOMENTUM ON LONGITUDINAL AND DIRECTIONAL STABILITY IN STEADY ROLLING MANEUVERS. Ordway B. Gates, Jr., and C. H. Woodling. April 1958. 20p. diagrs., tab. (NACA TN 4249. Supersedes RM L55G05)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF FLIGHT CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT AIRPLANE MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP. Joseph L. Johnson, Jr. July 1958. 32p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4255)

LOW-SPEED EXPERIMENTAL DETERMINATION OF THE EFFECTS OF LEADING-EDGE RADIUS AND PROFILE THICKNESS ON STATIC AND OSCILLATORY LATERAL STABILITY DERIVATIVES FOR A DELTA WING WITH 60° OF LEADING-EDGE SWEEP. Herman S. Fletcher. July 1958. 45p. diagrs., photos., tabs. (NACA TN 4341)

MEASUREMENTS OF THE MOTIONS OF A LARGE SWEPT-WING AIRPLANE IN ROUGH AIR. Richard H. Rhyne. September 1958. 22p. diagrs., photo., tabs. (NACA TN 4310)

APPROXIMATE METHOD FOR CALCULATING MOTIONS IN ANGLES OF ATTACK AND SIDESLIP DUE TO STEP PITCHING- AND YAWING-MOMENT INPUTS DURING STEADY ROLL. Martin T. Moul and Teresa R. Brennan. September 1958. 42p. diagrs., tabs. (NACA TN 4346)

EFFECTS OF FREQUENCY AND AMPLITUDE ON THE YAWING DERIVATIVES OF TRIANGULAR, SWEPT, AND UNSWEPT WINGS AND OF A TRIANGULAR-WING—FUSELAGE COMBINATION WITH AND WITHOUT A TRIANGULAR TAIL PERFORMING SINUSOIDAL YAWING OSCILLATIONS. William Letko and Herman S. Fletcher. September 1958. 52p. diagrs., photos., tabs. (NACA TN 4390)

(1.8.1.2.3)
Damping Derivatives

PRELIMINARY RESULTS OF THE FLIGHT INVESTIGATION BETWEEN MACH NUMBERS OF 0.80 AND 1.36 OF A ROCKET-POWERED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Homer P. Mason. October 31, 1950. 30p. diagrs., photos., tab. (NACA RM L50H29a)

DETERMINATION OF LONGITUDINAL STABILITY OF THE BELL X-1 AIRPLANE FROM TRANSIENT RESPONSES AT MACH NUMBERS UP TO 1.12 AT LIFT COEFFICIENTS OF 0.3 AND 0.6. Eliwyn E. Angle and Euclid C. Holleman. November 7, 1950. 22p diagrs. (NACA RM L50I06a)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION USING ROCKET-PROPELLED MODELS. PRELIMINARY RESULTS AT MACH NUMBERS FROM 0.65 TO 1.25. Jesse L. Mitchell and Robert F. Peck. December 1, 1950. 30p. diagrs., photos. (NACA RM L50J03)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

EXPERIMENTAL INVESTIGATION OF THE STATIC AERODYNAMIC AND DYNAMIC DAMPING-IN-ROLL CHARACTERISTICS OF AN 8-CM AIRCRAFT ROCKET WITH SOLID AND SLOTTED FINS. Robert S. Chubb. June 1952. ii, 43p. diagrs., photo. (NACA RM A52C04)

PRELIMINARY INVESTIGATION OF THE LOW-AMPLITUDE DAMPING IN PITCH OF TAILLESS DELTA- AND SWEPT-WING CONFIGURATIONS AT MACH NUMBERS FROM 0.7 TO 1.35. Charles T. D'Aiutolo and Robert N. Parker. August 1952. 27p. diagrs., photos., tab. (NACA RM L52G09)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

DAMPING IN PITCH OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Murray Tobak. April 1953. ii, 107p. diagrs. (NACA RM A52L04a)

AN EXPERIMENTAL INVESTIGATION AT SUBSONIC AND SUPERSONIC SPEEDS OF THE TORSIONAL DAMPING CHARACTERISTICS OF A CONSTANT-CHORD CONTROL SURFACE OF AN ASPECT RATIO 2 TRIANGULAR WING. David E. Reese, Jr. July 1953. 32p. diagrs., photos., tab. (NACA RM A53D27)

A ROCKET-MODEL INVESTIGATION OF THE LONGITUDINAL STABILITY, LIFT, AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION WITH HORIZONTAL TAIL OF ASPECT RATIO 4.33. Robert F. Peck and James A. Hollinger. August 1953. 33p. diagrs., photos. (NACA RM L53F19a)

NOTES ON DAMPING IN ROLL AND LOAD DISTRIBUTIONS IN ROLL AT HIGH ANGLES OF ATTACK AND HIGH SUBSONIC SPEED. Richard E. Kuhn. August 1953. 18p. diagrs., tab. (NACA RM L53G13a)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

INVESTIGATION AT MACH NUMBERS OF 1.62, 1.93, AND 2.41 OF THE EFFECT OF OSCILLATION AMPLITUDE ON THE DAMPING IN PITCH OF DELTA-WING–BODY COMBINATIONS. Arthur Henderson, Jr. October 1953. 28p. diagrs., photos. (NACA RM L53H25)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING A 45° SWEPT WING OF ASPECT RATIO 6.0. John C. McFall, Jr. January 1954. 34p. diagrs., photos. (NACA RM L53G22a)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A 52.5° DELTA WING AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. March 1954. 31p. diagrs., photos. (NACA RM L54A20)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF TAILLESS DELTA-WING–BODY COMBINATIONS AT MACH NUMBERS FROM 0.80 TO 1.35 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. June 1954. 34p. diagrs., photos., tab. (NACA RM L54D29)

LOW-SPEED MEASUREMENT OF STATIC STABILITY AND DAMPING DERIVATIVES OF A 60° DELTA-WING MODEL FOR ANGLES OF ATTACK OF 0° TO 90°. Donald E. Hewes. September 1954. 30p. diagrs., photo., tab. (NACA RM L54G22a)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A DIAMOND-PLAN-FORM WING OF ASPECT RATIO 3.08 AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1954. 37p. diagrs., photos. (NACA RM L54G27a)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A CANARD CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AND NACA 65A009 AIRFOIL SECTION. A. James Vitale and John C. McFall, Jr. November 1954. 24p. diagrs., photos., tab. (NACA RM L54I01)

LOW-AMPLITUDE DAMPING-IN-PITCH CHARACTERISTICS OF FOUR TAILLESS SWEPT WING-BODY COMBINATIONS AT MACH NUMBERS FROM 0.85 TO 1.30 AS OBTAINED WITH ROCKET-POWERED MODELS. Charles T. D'Aiutolo. November 1954. 34p. diagrs., photos., tab. (NACA RM L54I10)

LOW-SPEED MEASUREMENTS OF ROLLING AND YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Joseph L. Johnson, Jr. December 1954. 17p. diagrs., tab. (NACA RM L54G27)

ADDITIONAL MEASUREMENTS OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. July 1955. 31p. diagrs. (NACA RM A55F02a)

FLIGHT MEASUREMENTS OF THE LATERAL RESPONSE CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman. August 1955. 37p. diagrs., tabs. (NACA RM H55E26)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.7 TO 1.75 OF A FOUR-ENGINE SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM A ROCKET-PROPELLED MODEL TEST. Rowe Chapman, Jr. September 1955. 39p. diagrs., photos., tabs. (NACA RM L55F23)

FREE-FLIGHT INVESTIGATION TO OBTAIN DRAG-AT-LIFT AND STABILITY DATA FOR A 60° DELTA-WING—BODY CONFIGURATION OVER A MACH NUMBER RANGE OF 1.3 TO 1.6. Clement J. Welsh. October 1955. 23p. diagrs., photo., tab. (NACA RM L55G14)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON AN 80° DELTA-WING MISSILE. Thomas R. Turner and Raymond D. Vogler. November 1955. 32p. diagrs. (NACA RM L55H22)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEED OF THE ROLLING STABILITY DERIVATIVES OF A COMPLETE MODEL HAVING A CLIPPED-DELTA WING AND A HIGH HORIZONTAL TAIL. William C. Sleeman, Jr., and Albert G. Few, Jr. February 1956. 32p. diagrs., tab. (NACA RM L55K11)

LONGITUDINAL STABILITY INVESTIGATION FOR A MACH NUMBER RANGE OF 0.8 TO 1.7 OF AN AIRPLANE CONFIGURATION WITH A 45° SWEPT WING AND A LOW HORIZONTAL TAIL. John C. McFall, Jr. February 1956. 32p. diagrs., photos., tab. (NACA RM L55L09)

AN ANALOG STUDY OF THE RELATIVE IMPORTANCE OF VARIOUS FACTORS AFFECTING ROLL COUPLING. Joseph Weil and Richard E. Day. April 1956. 81p. diagrs., photo., tabs. (NACA RM H56A06)

LOW-SPEED MEASUREMENTS OF STATIC STABILITY, DAMPING IN YAW, AND DAMPING IN ROLL OF A DELTA, A SWEPT, AND AN UNSWEPT WING FOR ANGLES OF ATTACK FROM 0° TO 90°. Joseph L. Johnson, Jr. April 1956. 19p. diagrs., tabs. (NACA RM L56B01)

AERODYNAMIC DAMPING AT MACH NUMBERS OF 1.3 AND 1.6 OF A CONTROL SURFACE ON A TWO-DIMENSIONAL WING BY THE FREE-OSCILLATION METHOD. W. J. Tuovila and Robert W. Hess. May 1956. 21p. diagrs., tabs. (NACA RM L56A26a)

EFFECT OF WING HEIGHT AND DIHEDRAL ON THE LATERAL STABILITY CHARACTERISTICS AT LOW LIFT OF A 45° SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM TIME-VECTOR ANALYSES OF ROCKET-PROPELLED-MODEL FLIGHTS AT MACH NUMBERS FROM 0.7 TO 1.3. Clarence L. Gillis and Rowe Chapman, Jr. September 1956. 70p. diagrs., photos., tabs. (NACA RM L56E17)

WIND-TUNNEL INVESTIGATION OF THE DAMPING IN ROLL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS. Russell W. McDearmon. September 1956. 36p. diagrs., photos. (NACA RM L56F07)

WIND-TUNNEL INVESTIGATION OF DAMPING IN ROLL AT SUPERSONIC SPEEDS OF TRIANGULAR WINGS AT ANGLES OF ATTACK. Russell W. McDearmon and Robert A. Jones. September 1956. 32p. diagrs., photos., tab. (NACA RM L56F13a)

EXPERIMENTAL HINGE MOMENTS ON FREELY OSCILLATING FLAP-TYPE CONTROL SURFACES. C. William Martz. October 1956. 29p. diagrs., photos., tab. (NACA RM L56G20)

LOW-SPEED MEASUREMENT OF TAIL CONTRIBUTION TO ROLLING STABILITY DERIVATIVES AND AIR-FLOW ANGULARITY AT THE TAIL FOR AN X-TAIL MODEL IN STEADY ROLL INCLUDING SOME EFFECTS OF WING-TIP STORES. Donald R. Riley. November 1956. 28p. diagrs., photo., tab. (NACA RM L56I21)

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DETERMINATION OF LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS FROM FREE-FLIGHT MODEL TESTS WITH RESULTS AT TRANSONIC SPEEDS FOR THREE AIRPLANE CONFIGURATIONS. Clarence L. Gillis and Jesse L. Mitchell. 1957. ii, 28p. diagrs., photos., tabs. (NACA Rept. 1337)

EXPERIMENTAL DETERMINATION AT SUBSONIC SPEEDS OF THE OSCILLATORY AND STATIC LATERAL STABILITY DERIVATIVES OF A SERIES OF DELTA WINGS WITH LEADING-EDGE SWEEP FROM 30° TO 86.5°. William Letko. April 1957. 38p. diagrs., photos., tab. (NACA RM L57A30)

A METHOD UTILIZING DATA ON THE SPIRAL, ROLL-SUBSIDENCE, AND DUTCH ROLL MODES FOR DETERMINING LATERAL STABILITY DERIVATIVES FROM FLIGHT MEASUREMENTS. Bernard B. Klawans and Jack A. White. August 1957. 38p. diagrs., tabs. (NACA TN 4066)

EFFECT OF FREQUENCY OF SIDESLIPPING MOTION ON THE LATERAL STABILITY DERIVATIVES OF A TYPICAL DELTA-WING AIRPLANE. Jacob H. Lichtenstein and James L. Williams. September 1957. 46p. diagrs., photos., tabs. (NACA RM L57F07)

WIND-TUNNEL INVESTIGATION OF EFFECTS OF GROUND PROXIMITY AND OF SPLIT FLAPS ON THE LATERAL STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL OSCILLATING IN YAW. Byron M. Jaquet. September 1957. 32p. diagrs. photos., tab. (NACA TN 4119)

ON THE MINIMIZATION OF AIRPLANE RESPONSES TO RANDOM GUSTS. Murray Tobak. October 1957. 71p. diagrs. (NACA TN 3290)

FLIGHT INVESTIGATION OF THE TRANSONIC LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Jack Fischel, Euclid C. Holleman, and Robert A. Tremant. December 1957. 61p. diagrs., photos., tab. (NACA RM H57I05)

EFFECT OF ANGLE OF ATTACK AND THICKNESS ON AERODYNAMIC COEFFICIENTS OF A RIGID WING OSCILLATING AT VERY LOW FREQUENCIES IN TWO-DIMENSIONAL SUPERSONIC FLOW. Frank S. Malvestuto, Jr., and Julia M. Goodwin. January 1958. 65p. diagrs. (NACA TN 4069)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. January 1958. 47p. diagrs., tab. (NACA TN 4185. Supersedes RM L54C26)

LIFT AND MOMENT ON THIN ARROWHEAD WINGS WITH SUPERSONIC EDGES OSCILLATING IN SYMMETRIC FLAPPING AND ROLL AND APPLICATION TO THE FLUTTER OF AN ALL-MOVABLE CONTROL SURFACE. H. J. Cunningham. January 1958. 58p. diagrs. (NACA TN 4189)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. May 1958. 45p. diagrs., tabs. (NACA TN 4240. Supersedes RM L53F19)

LOW-SPEED EXPERIMENTAL DETERMINATION OF THE EFFECTS OF LEADING-EDGE RADIUS AND PROFILE THICKNESS ON STATIC AND OSCILLATORY LATERAL STABILITY DERIVATIVES FOR A DELTA WING WITH 60° OF LEADING-EDGE SWEEP. Herman S. Fletcher. July 1958. 45p. diagrs., photos., tabs. (NACA TN 4341)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF AERODYNAMIC FORCES AND MOMENTS ON LOW-ASPECT-RATIO WINGS UNDERGOING FLAPPING OSCILLATIONS. Donald S. Woolston, Sherman A. Clevenson, and Sumner A. Leadbetter. August 1958. 25p. diagrs., tab. (NACA TN 4302)

EFFECTS OF FREQUENCY AND AMPLITUDE ON THE YAWING DERIVATIVES OF TRIANGULAR, SWEPT, AND UNSWEPT WINGS AND OF A TRIANGULAR-WING—FUSELAGE COMBINATION WITH AND WITHOUT A TRIANGULAR TAIL PERFORMING SINUSOIDAL YAWING OSCILLATIONS. William Letko and Herman S. Fletcher. September 1958. 52p. diagrs., photos., tabs. (NACA TN 4390)

(1.8.2) CONTROL

LOW-SPEED MEASUREMENT OF STATIC STABILITY AND DAMPING DERIVATIVES OF A 60° DELTA-WING MODEL FOR ANGLES OF ATTACK OF 0° TO 90°. Donald E. Hewes. September 1954. 30p. diagrs., photo., tab. (NACA RM L54G22a)

AN ANALOG COMPUTER STUDY OF SEVERAL STABILITY AUGMENTATION SCHEMES DESIGNED TO ALLEVIATE ROLL-INDUCED INSTABILITY. Brent Y. Creer. February 1957. 50p. diagrs., tab. (NACA RM A56H30)

SOME GROUND MEASUREMENTS OF THE FORCES APPLIED BY PILOTS TO A SIDE-LOCATED AIRCRAFT CONTROLLER. Roy F. Brissenden. November 1957. 17p. diagrs., photos., tab. (NACA TN 4171)

FLIGHT INVESTIGATION OF THE ACCEPTABILITY OF A SMALL SIDE-LOCATED CONTROLLER USED WITH AN IRREVERSIBLE HYDRAULIC CONTROL SYSTEM. Helmut A. Kuehnel and Robert W. Sommer. July 1958. 19p. diagrs., photos., tabs. (NACA TN 4297)

(1.8.2.1) LONGITUDINAL

FLIGHT TESTS AT TRANSONIC AND SUPERSONIC SPEEDS OF AN AIRPLANE-LIKE CONFIGURATION WITH THIN STRAIGHT SHARP-EDGE WINGS AND TAIL SURFACES. Clarence L. Gillis and Jesse L. Mitchell. January 5, 1949. 37p. diagrs., photos., tab. (NACA RM L8K04a)

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.40. M. Leroy Spearman. April 3, 1950. 27p. diagrs., photos., tab. (NACA RM L9L08)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.59. M. Leroy Spearman and John H. Hilton, Jr. June 29, 1950. 22p. diagrs., photo., tab. (NACA RM L50E12)

DETERMINATION OF LONGITUDINAL STABILITY OF THE BELL X-1 AIRPLANE FROM TRANSIENT RESPONSES AT MACH NUMBERS UP TO 1.12 AT LIFT COEFFICIENTS OF 0.3 AND 0.6. Ellwyn E. Angle and Euclid C. Holleman. November 7, 1950. 22p diagrs. (NACA RM L50I06a)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION USING ROCKET-PROPELLED MODELS. PRELIMINARY RESULTS AT MACH NUMBERS FROM 0.65 TO 1.25. Jesse L. Mitchell and Robert F. Peck. December 1, 1950. 30p. diagrs., photos. (NACA RM L50J03)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

ANALYSIS OF LONGITUDINAL STABILITY AND TRIM OF THE BELL X-1 AIRPLANE AT A LIFT COEFFICIENT OF 0.3 TO MACH NUMBERS NEAR 1.05. Hubert M. Drake, John R. Carden, and Harry P. Clagett. October 1951. 30p. diagrs., photo., tab. (NACA RM L51H01)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

AN INVESTIGATION OF A 0.16-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE TO DETERMINE MEANS OF IMPROVING THE LOW-SPEED LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS. John W. McKee and John M. Riebe. November 1952. 90p. diagrs., photos., tabs. (NACA RM L52H01)

AN ANALYSIS OF THE EFFECT OF A CURVED RAMP ON THE TAKE-OFF PERFORMANCE OF CATAPULT-LAUNCHED AIRPLANES. Wilmer H. Reed, III. November 1952. 28p. diagrs., tab. (NACA RM L52I05)

TOTAL-PRESSURE AND SCHLIEREN STUDIES OF THE WAKES OF VARIOUS CANARD CONTROL SURFACES MOUNTED ON A MISSILE BODY AT A MACH NUMBER OF 1.93. William B. Boatright. November 1952. 47p. photos., diagrs. (NACA RM L52I29)

HINGE-MOMENT CHARACTERISTICS FOR SEVERAL TIP CONTROLS ON A 60° SWEPTBACK DELTA WING AT MACH NUMBER 1.61. K. R. Czarnecki and Douglas R. Lord. January 1953. 31p. diagrs., photos. (NACA RM L52K28)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

A THEORETICAL STUDY OF THE EFFECT OF CONTROL-DEFLECTION AND CONTROL-RATE LIMITATIONS ON THE NORMAL ACCELERATION AND ROLL RESPONSE OF A SUPERSONIC INTERCEPTOR. Howard F. Matthews and Stanley F. Schmidt. April 1953. 28p. photos., diagrs., tabs. (NACA RM A53B11)

LOADS DUE TO FLAPS AND SPOILERS ON SWEPTBACK WINGS AT SUPERSONIC AND TRANSONIC SPEEDS. Alexander D. Hammond and F. E. West, Jr. June 1953. 17p. diagrs. (NACA RM L53D29a)

A STUDY OF VISUAL INTERCEPTION ATTACKS ON A NONMANEUVERING AIRPLANE TARGET. Donald C. Cheatham, Charles W. Mathews, and John A. Harper. July 1953. 97p. diagrs., photos., tabs. (NACA RM L53E01)

A FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.67 TO 1.81 OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE CONFIGURATION HAVING AN ALL-MOVABLE TAIL. Martin T. Moul and Hal T. Baber, Jr. October 1953. 43p. diagrs., photo. (NACA RM L53G29)

SUBSONIC AND SUPERSONIC HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNBALANCED LATERAL CONTROL HAVING LOW THEORETICAL HINGE MOMENTS AT SUPERSONIC SPEEDS. Kenneth L. Goin and William E. Palmer. October 1953. 55p. diagrs., photos. (NACA RM L53G31a)

THE INTERPRETATION OF NONLINEAR PITCHING MOMENTS IN RELATION TO THE PITCH-UP PROBLEM. George S. Campbell and Joseph Weil. October 1953. 32p. diagrs., tabs. (NACA RM L53I02)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE HINGE-MOMENT AND NORMAL-FORCE PROPERTIES OF A FULL-SPAN, CONSTANT-CHORD, PARTIALLY BALANCED TRAILING-EDGE CONTROL ON A 60° CLIPPED DELTA WING BETWEEN MACH NUMBERS OF 0.50 AND 1.26. C. William Martz and John W. Goslee. October 1953. 33p. diagrs., photos., tab. (NACA RM L53I04)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. M. Leroy Spearman. November 1953. 34p. diagrs., tabs. (NACA RM L53I22)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

INVESTIGATION OF A TRAILING-EDGE PADDLE-CONTROL SURFACE ON A TRIANGULAR WING OF ASPECT RATIO 2 AT SUBSONIC AND SUPERSONIC SPEEDS. Louis H. Ball. February 1954. 18p. diagrs., tab. (NACA RM A53K20)

DETERMINATION OF LONGITUDINAL STABILITY IN SUPERSONIC ACCELERATED MANEUVERS FOR THE DOUGLAS D-558-II RESEARCH AIRPLANE. Herman O. Ankenbruck. February 1954. 29p. diagrs., photos., tab. (NACA RM L53J20)

EFFECT OF WING SLATS AND INBOARD WING FENCES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS. Jack Fischel. February 1954. 125p. diagrs., photos., tabs. (NACA RM L53L16)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A 52.5° DELTA WING AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. March 1954. 31p. diagrs., photos. (NACA RM L54A20)

ROCKET-POWERED MODEL INVESTIGATION OF LIFT, DRAG, AND STABILITY OF A BODY-TAIL CONFIGURATION AT MACH NUMBERS FROM 0.8 TO 2.3 AND ANGLES OF ATTACK BETWEEN ±6.5°. Warren Gillespie, Jr., and Albert E. Dietz. April 1954. 42p. diagrs., photos., tabs. (NACA RM L54C04)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

PRELIMINARY WIND-TUNNEL INVESTIGATION OF TWO TYPES OF JET-EXIT CONFIGURATIONS FOR CONTROL OF AIRCRAFT. Gerald W. Englert and L. Abbott Leissler. August 1954. 20p. diagrs. (NACA RM E54E27)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

WIND-TUNNEL INVESTIGATION AT A MACH NUMBER OF 2.01 OF THE AERODYNAMIC CHARACTERISTICS IN COMBINED PITCH AND SIDESLIP OF SOME CANARD-TYPE MISSILES HAVING CRUCIFORM WINGS AND CANARD SURFACES WITH 70° DELTA PLAN FORMS. M. Leroy Spearman and Cornelius Driver. August 1954. 121p. diagrs., tabs. (NACA RM L54F09)

EFFECTS OF CANOPY, REVISED VERTICAL TAIL, AND A YAW-DAMPER VANE ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT A MACH NUMBER OF 2.01. Ross B. Robinson. August 1954. 29p. diagrs., tabs. (NACA RM L54F25)

AERODYNAMIC CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE CONFIGURATION HAVING A DIAMOND-PLAN-FORM WING OF ASPECT RATIO 3.08 AND A LOW, SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1954. 37p. diagrs., photos. (NACA RM L54G27a)

LONGITUDINAL STABILITY CHARACTERISTICS IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE EQUIPPED WITH A LEADING-EDGE WING CHORD-EXTENSION. Jack Fischel and Cyril D. Brunn. October 1954. 62p. diagrs., photos., tab. (NACA RM H54H16)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

ANALYTICAL STUDY OF THE EFFECT OF CENTER-OF-GRAVITY POSITION ON THE RESPONSE TO LONGITUDINAL CONTROL IN LANDING APPROACHES OF A SWEPT-WING AIRPLANE OF LOW ASPECT RATIO HAVING NO HORIZONTAL TAIL. Ralph W. Stone, Jr. October 1954. 35p. diagrs., tabs. (NACA RM L54H04)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. AERODYNAMIC CHARACTERISTICS OF THE CONFIGURATION EQUIPPED WITH A CANARD CONTROL SURFACE AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 22p. diagrs., photo., tab. (NACA RM L54H19)

THE EFFECT OF AN OPERATING PROPELLER ON THE AERODYNAMIC CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL OF A VERTICAL-RISING AIRPLANE HAVING AN UNSWEPT WING OF ASPECT RATIO 3. Fred B. Sutton and Donald A. Buell. November 1954. 90p. diagrs., photos., tabs. (NACA RM A52E06)

DETERMINATION OF LONGITUDINAL HANDLING QUALITIES OF THE D-558-II RESEARCH AIRPLANE AT TRANSONIC AND SUPERSONIC SPEEDS TO A MACH NUMBER OF ABOUT 2.0. Herman O. Ankenbruck. November 1954. 25p. diagrs., photos., tab. (NACA RM H54G29a)

LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-BODY-TAIL COMBINATION HAVING A WING WITH 45° OF SWEEPBACK AND A TAIL IN VARIOUS VERTICAL POSITIONS. Jack D. Stephenson, Angelo Bandettini, and Ralph Selan. January 1955. 64p. diagrs., photos., tabs. (NACA RM A54K09)

THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF SEVERAL WING-FUSELAGE-TAIL COMBINATIONS HAVING SWEPTBACK WINGS WITH NACA FOUR-DIGIT THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. March 1955. 128p. diagrs., photos., tab. (NACA RM A54L08)

A THEORETICAL INVESTIGATION OF THE EFFECT OF AUXILIARY DAMPING ON THE LONGITUDINAL RESPONSE OF A TRANSONIC BOMBER CONFIGURATION IN FLIGHT THROUGH CONTINUOUS TURBULENCE. T. F. Bridgland, Jr. March 1955. 26p. diagrs., tab. (NACA RM L54K15a)

EXPLORATORY INVESTIGATION OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE IDENTICAL TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. April 1955. 25p. diagrs., photos. (NACA RM A55C28)

LIFT, DRAG, AND LONGITUDINAL STABILITY AT MACH NUMBERS FROM 0.8 TO 2.1 OF A ROCKET-POWERED MODEL HAVING A TAPERED UNSWEPT WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. April 1955. 29p. diagrs., photo., tabs. (NACA RM L55B10)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

SIMULATOR STUDIES OF THE ATTACK PHASE OF AN AUTOMATICALLY CONTROLLED INTERCEPTOR. I - PRELIMINARY STUDIES OF THE LATERAL AND LONGITUDINAL CONTROL SYSTEMS. Albert A. Schy, Ordway B. Gates, Jr., and C. H. Woodling. II - SOME RESULTS OF A STUDY PERFORMED ON THE TYPHOON COMPUTER. Windsor L. Sherman and Leonard Sternfield. August 1955. 24p. diagrs. (NACA RM L55E27a)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.7 TO 1.75 OF A FOUR-ENGINE SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM A ROCKET-PROPELLED MODEL TEST. Rowe Chapman, Jr. September 1955. 39p. diagrs., photos., tabs. (NACA RM L55F23)

A THEORETICAL ANALYSIS OF A SIMPLE AERODYNAMIC DEVICE TO IMPROVE THE LONGITUDINAL DAMPING OF A CRUCIFORM MISSILE CONFIGURATION AT SUPERSONIC SPEEDS. James E. Clements. October 1955. 36p. diagrs., tab. (NACA RM L55H31)

(1) AERODYNAMICS

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON AN 80° DELTA-WING MISSILE. Thomas R. Turner and Raymond D. Vogler. November 1955. 32p. diagrs. (NACA RM L55H22)

THE EFFECT OF LEADING-EDGE EXTENSIONS OF THE LONGITUDINAL CHARACTERISTICS AT MACH NUMBERS UP TO 0.92 OF A WING-FUSELAGE-TAIL COMBINATION HAVING A 40° SWEPTBACK WING WITH NACA 64A THICKNESS DISTRIBUTION. Fred B. Sutton. January 1956. 52p. diagrs., photos., tabs. (NACA RM A55I29)

AN INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC MACH NUMBERS OF A SWEPT-WING SUPERSONIC BOMBER CONFIGURATION. Ralph P. Bielat and J. Lawrence Cooper. February 1956. 92p. diagrs., photos., tabs. (NACA RM L53F05)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF STORE AND HORIZONTAL-TAIL LOADS AND SOME EFFECTS OF FUSELAGE-AFTERBODY MODIFICATIONS ON A SWEPT-WING FIGHTER AIRPLANE Joseph M. Hallissy, Jr., and Louis Kudlacik. April 1956. 79p. diagrs., photos. (NACA RM L56A26)

AN EVALUATION OF AN AEROMECHANICAL METHOD OF MINIMIZING SERVO-MISSILE TRANSFER-FUNCTION VARIATIONS WITH FLIGHT CONDITION. Martin L. Nason. April 1956. 41p. diagrs., tabs. (NACA RM L56A31)

WIND-TUNNEL INVESTIGATION OF A RAM-JET MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. FORCE AND MOMENT CHARACTERISTICS AT COMBINED ANGLES OF PITCH AND SIDESLIP FOR MACH NUMBER 2.01. Cornelius Driver and Clyde V. Hamilton. April 1956. 67p. diagrs., photo., tabs. (NACA RM L56B21)

FULL-SCALE WIND-TUNNEL TESTS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF THE XV-1 CONVERTIPLANE IN THE AUTOROTATING FLIGHT RANGE. David H. Hickey. May 1956. 64p. diagrs., photos., tabs. (NACA RM A55K21a)

A HORIZONTAL-TAIL ARRANGEMENT FOR COUNTERACTING STATIC LONGITUDINAL INSTABILITY OF SWEPTBACK WINGS. George G. Edwards and Howard F. Savage. May 1956. 51p. diagrs., photos., tab. (NACA RM A56D06)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE SUBSONIC AND TRANSONIC LONGITUDINAL HANDLING QUALITIES OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. June 1956. 57p. diagrs., photos., tabs. (NACA RM H56C30)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING THE LONGITUDINAL CHARACTERISTICS OF A THIN UNSWEPT-WING MODEL EQUIPPED WITH LEADING- AND TRAILING-EDGE FLAPS. David G. Koenig. July 1956. 52p. diagrs., photo., tabs. (NACA RM A56D23)

LOW-SPEED WIND-TUNNEL RESULTS FOR A THIN ASPECT-RATIO-1.85 POINTED-WING—FUSELAGE MODEL WITH DOUBLE SLOTTED FLAPS. Albert E. Brown. July 1956. 31p. diagrs., tabs. (NACA RM L56D03)

BLOWING OVER THE FLAPS AND WING LEADING EDGE OF A THIN 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH LEADING-EDGE DEVICES. H. Clyde McLemore and Marvin P. Fink. July 1956. 57p. diagrs., photo. (NACA RM L56E16)

HINGE MOMENT AND EFFECTIVENESS OF AN UNSWEPT CONSTANT-CHORD CONTROL AND AN OVERHANG-BALANCED, SWEPT HINGE-LINE CONTROL ON AN 80° SWEPT POINTED WING AT MACH NUMBERS FROM 0.75 TO 1.96. Lawrence D. Guy. August 1956. 39p. diagrs., photo. (NACA RM L53F11)

FREE-FLIGHT INVESTIGATION OVER A MACH NUMBER RANGE FROM 0.74 TO 1.43 AT LIFT COEFFICIENTS FROM -0.15 TO 0.75 OF AN AIRPLANE-CONFIGURATION MODEL HAVING A 52.5° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1956. 41p. diagrs., photos. (NACA RM L56G09)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS - LONGITUDINAL AND LATERAL STABILITY AND CONTROL. William H. Tolhurst, Jr., and Mark W. Kelly. October 1956. 64p. diagrs., photo., tabs. (NACA RM A56E24)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH A 45° SWEPTBACK WING OF ASPECT RATIO 2.8 WITH AREA SUCTION APPLIED TO TRAILING-EDGE FLAPS AND WITH SEVERAL WING LEADING-EDGE MODIFICATIONS. David G. Koenig and Kiyoshi Aoyagi. November 1956. 66p. diagrs., photo., tabs. (NACA RM A56H08)

AN ANALYSIS OF THE EFFECTS OF AEROELASTICITY ON STATIC LONGITUDINAL STABILITY AND CONTROL OF A SWEPT-WING AIRPLANE. Richard B. Skoog. 1957. ii, 12p. diagrs. (NACA Rept. 1298. Supersedes RM A51C19)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. I - EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE LONGITUDINAL CHARACTERISTICS. Bruce E. Tinling and Armando E. Lopez. July 1957. 85p. diagrs., photo., tabs. (NACA TN 4041. Supersedes RM A53L15)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. III - EFFECTS OF TRAILING-EDGE FLAPS. Bruce E. Tinling and A. V. Karpen. July 1957. 37p. diagrs., photos., tabs. (NACA TN 4043. Supersedes RM A54L07)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1957. 48p. diagrs., photos., tabs. (NACA TN 4044. Supersedes RM A55E04)

REVIEW AND INVESTIGATION OF UNSATISFACTORY CONTROL CHARACTERISTICS INVOLVING INSTABILITY OF PILOT-AIRPLANE COMBINATION AND METHODS FOR PREDICTING THESE DIFFICULTIES FROM GROUND TESTS. William H. Phillips, B. Porter Brown, and James T. Matthews, Jr. August 1957. 57p. diagrs. (NACA TN 4064. Supersedes RM L53F17a)

FLIGHT-TEST INVESTIGATION ON THE LANGLEY CONTROL-LINE FACILITY OF A MODEL OF A PROPELLER-DRIVEN TAIL-SITTER-TYPE VERTICAL-TAKE-OFF AIRPLANE WITH DELTA WING DURING RAPID TRANSITIONS. Robert O. Schade. August 1957. 19p. diagrs., photo., tab. (NACA TN 4070)

WIND-TUNNEL INVESTIGATION OF EXTERNAL-FLOW JET-AUGMENTED DOUBLE SLOTTED FLAPS ON A RECTANGULAR WING AT AN ANGLE OF ATTACK OF 0^{o} TO HIGH MOMENTUM COEFFICIENTS. Edwin E. Davenport. September 1957. 31p. diagrs., tabs. (NACA TN 4079)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE FLOW-FIELD CHARACTERISTICS AND GROUND INFLUENCE ON A MODEL WITH JET-AUGMENTED FLAPS. Raymond D. Vogler and Thomas R. Turner. September 1957. 48p. diagrs., photos. (NACA TN 4116)

TRANSITION-FLIGHT INVESTIGATION OF A FOUR-ENGINE-TRANSPORT VERTICAL-TAKE-OFF AIRPLANE MODEL UTILIZING A LARGE FLAP AND EXTENSIBLE VANES FOR REDIRECTING THE PROPELLER SLIPSTREAM. Louis P. Tosti. December 1957. 35p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4131)

AN ANALYTICAL INVESTIGATION OF THE GUST-ALLEVIATING PROPERTIES OF A SIMPLE PITCH DAMPER. Norman L. Crabill. December 1957. 47p. diagrs., tab. (NACA TN 4173)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. December 1957. 29p. diagrs., photo., tabs. (NACA TN 4192. Supersedes RM L54C02)

GROUND SIMULATOR STUDIES OF THE EFFECTS OF VALVE FRICTION, STICK FRICTION, FLEXIBILITY AND BACKLASH ON POWER CONTROL SYSTEM QUALITY. B. Porter Brown. 1958. ii, 13p. diagrs., photo. (NACA Rept. 1348. Supersedes TN 3998)

LOW-SPEED BOUNDARY-LAYER-CONTROL INVESTIGATION ON A THIN RECTANGULAR SEMI-SPAN WING WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Delwin R. Croom and Thomas R. Turner. January 1958. 213p. diagrs., tabs. (NACA RM L57J15)

WIND-TUNNEL INVESTIGATION OF THE STATIC LONGITUDINAL STABILITY AND TRIM CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED FLAP. Joseph L. Johnson, Jr. January 1958. 89p. diagrs., tab. (NACA TN 4177)

ANALYTICAL INVESTIGATION OF ACCELERATION RESTRICTION IN A FIGHTER AIRPLANE WITH AN AUTOMATIC CONTROL SYSTEM. James T. Matthews, Jr. January 1958. 24p. diagrs. (NACA TN 4179)

MEASURED AND PREDICTED DYNAMIC RESPONSE CHARACTERISTICS OF A FLEXIBLE AIRPLANE TO ELEVATOR CONTROL OVER A FREQUENCY RANGE INCLUDING THREE STRUCTURAL MODES. Henry A. Cole, Jr., and Euclid C. Holleman. February 1958. 81p. diagrs., photo., tabs. (NACA TN 4147)

QUALITATIVE SIMULATOR STUDY OF LONGITUDINAL STICK FORCES AND DISPLACEMENTS DESIRABLE DURING TRACKING. Stanley Faber. February 1958. 23p. diagrs., photo. (NACA TN 4202)

DATA FROM FLOW-FIELD SURVEYS BEHIND A LARGE-SCALE THIN STRAIGHT WING OF ASPECT RATIO 3. William T. Evans. June 1958. 13p. diagrs. (NACA RM A58D17)

EXPLORATORY WIND-TUNNEL INVESTIGATION TO DETERMINE THE LIFT EFFECTS OF BLOWING OVER FLAPS FROM NACELLES MOUNTED ABOVE THE WING. John M. Riebe and Edwin E. Davenport. June 1958. 19p. diagrs., tab. (NACA TN 4298)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF FLIGHT CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT AIRPLANE MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP. Joseph L. Johnson, Jr. July 1958. 32p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4255)

EXPLORATORY WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF JET FLAPS ON UNSWEPT RECTANGULAR WINGS. Vernard E. Lockwood and Raymond D. Vogler August 1958. 37p. diagrs. (NACA TN 4353)

SOME STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN OVERLAPPED-TYPE TANDEM-ROTOR HELICOPTER AT LOW AIRSPEEDS. Robert J. Tapscott. September 1958. 27p. diagrs., tabs. (NACA TN 4393)

EFFECTS OF PROPELLER POSITION AND OVERLAP ON THE SLIPSTREAM DEFLECTION CHARACTERISTICS OF A WING-PROPELLER CONFIGURATION EQUIPPED WITH A SLIDING AND FOWLER FLAP. William C. Hayes, Jr., Richard E. Kuhn, and Irving R. Sherman. September 1958. 81p. diagrs., photos. (NACA TN 4404)

(1.8.2.2) LATERAL

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Kenneth W. Goodson and Paul Comisarow. October 17, 1947. 72p. diagrs., photos., tab. (NACA RM L7G31)

PRELIMINARY INVESTIGATION AT A MACH NUMBER OF 1.9 AND A REYNOLDS NUMBER OF 2,200,000 OF THREE AILERONS APPLICABLE TO THE BELL XS-2 AIRPLANE DESIGN. James C. Sivells and D. William Conner. May 25, 1948. 11p. diagrs., tab. (NACA RM L8D02)

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A MODEL OF A FIGHTER AIRPLANE WITHOUT A HORIZONTAL TAIL AND EQUIPPED WITH EITHER SINGLE OR TWIN VERTICAL TAILS. John W. Draper and Robert W. Rose. November 15, 1949. 20p. diagrs., photos., tab. (NACA RM L9J07a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LATERAL CONTROL CHARACTERISTICS AT MACH NUMBERS OF 1.40 AND 1.59. Ross B. Robinson. November 10, 1950. 40p. diagrs., photos., tabs. (NACA RM L50I11)

AN INVESTIGATION AT MACH NUMBERS OF 1.40 AND 1.59 OF THE EFFECTS OF AILERON PROFILE ON THE AERODYNAMIC CHARACTERISTICS OF A COMPLETE MODEL OF A SUPERSONIC AIRCRAFT CONFIGURATION. M. Leroy Spearman and Robert A. Webster. January 15, 1951. 40p. diagrs., photos., tabs. (NACA RM L50J31)

FREE-FLIGHT MEASUREMENTS AT MACH NUMBERS FROM 0.7 TO 1.6 OF SOME EFFECTS OF AIRFOIL-THICKNESS DISTRIBUTION AND TRAILING-EDGE ANGLE ON AILERON ROLLING EFFECTIVENESS AND DRAG FOR WINGS WITH 0° AND 45° SWEEPBACK. E. M. Fields and H. Kurt Strass. October 1951. 63p. diagrs., photos., tab. (NACA RM L51G27)

SUMMARY OF SOME EFFECTIVE AERODYNAMIC TWISTING-MOMENT COEFFICIENTS OF VARIOUS WING-CONTROL CONFIGURATIONS AT MACH NUMBERS FROM 0.6 TO 1.7 AS DETERMINED FROM ROCKET-POWERED MODELS. H. Kurt Strass. January 1952. 22p. diagrs., photo., 2 tabs. (NACA RM L51K20)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF SPOILER SPAN AND PROJECTION AND WING FLEXIBILITY ON ROLLING EFFECTIVENESS AND DRAG OF PLAIN SPOILERS ON A TAPERED SWEPTBACK WING AT MACH NUMBERS BETWEEN 0.6 AND 1.6. Eugene D. Schult and E. M. Fields. October 1952. 30p. diagrs., photo., tab. (NACA RM L52H06a)

HINGE-MOMENT CHARACTERISTICS FOR SEVERAL TIP CONTROLS ON A 60° SWEPTBACK DELTA WING AT MACH NUMBER 1.61. K. R. Czarnecki and Douglas R. Lord. January 1953. 31p. diagrs., photos. (NACA RM L52K28)

A THEORETICAL STUDY OF THE EFFECT OF CONTROL-DEFLECTION AND CONTROL-RATE LIMITATIONS ON THE NORMAL ACCELERATION AND ROLL RESPONSE OF A SUPERSONIC INTERCEPTOR. Howard F. Matthews and Stanley F. Schmidt. April 1953. 28p. photos., diagrs., tabs. (NACA RM A53B11)

LOADS DUE TO FLAPS AND SPOILERS ON SWEPTBACK WINGS AT SUPERSONIC AND TRANSONIC SPEEDS. Alexander D. Hammond and F. E. West, Jr. June 1953. 17p. diagrs. (NACA RM L53D29a)

A STUDY OF VISUAL INTERCEPTION ATTACKS ON A NONMANEUVERING AIRPLANE TARGET. Donald C. Cheatham, Charles W. Mathews, and John A. Harper. July 1953. 97p. diagrs., photos., tabs. (NACA RM L53E01)

INVESTIGATION OF SPOILER AILERONS WITH AND WITHOUT A GAP BEHIND THE SPOILER ON A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., William Solomon, and Edward M. Brummal. September 1953. 38p. diagrs. (NACA RM L53G07a)

SUBSONIC AND SUPERSONIC HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNBALANCED LATERAL CONTROL HAVING LOW THEORETICAL HINGE MOMENTS AT SUPERSONIC SPEEDS. Kennith L. Goin and William E. Palmer. October 1953. 55p. diagrs., photos. (NACA RM L53G31a)

RECENT EXPERIENCES WITH FLUTTER FAILURE OF SWEPTBACK, TAPERED WINGS HAVING OUTBOARD, PARTIAL-SPAN SPOILER CONTROLS. H. Kurt Strass and Edward T. Marley. October 1953. 20p. diagrs., photos., tabs. (NACA RM L53H26)

DATA ON SPOILER-TYPE AILERONS. John G. Lowry. October 1953. 27p. diagrs. (NACA RM L53I24a)

A METHOD FOR ESTIMATING THE ROLLING MOMENTS CAUSED BY WING-TAIL INTERFERENCE FOR MISSILE AT SUPERSONIC SPEEDS. Sherman Edwards and Katsumi Hikido. November 1953. 68p. diagrs., tabs. (NACA RM A53H18)

AN ENGINEERING METHOD FOR THE DETERMINATION OF AEROELASTIC EFFECTS UPON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPT WINGS. H. Kurt Strass and Emily W. Stephens. November 1953. 82p. diagrs., tabs. (NACA RM L53H14)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF SEVERAL INTERCHANGEABLE TIP CONTROLS ON A 60° DELTA WING AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Odell A. Morris. November 1953. 33p. diagrs., photo., tab. (NACA RM L53J08a)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

WIND-TUNNEL INVESTIGATIONS AT LOW AND TRANSONIC SPEEDS OF THE FEASIBILITY OF SELF-ACTUATING SPOILERS AS A LATERAL-CONTROL DEVICE FOR A MISSILE. Harleth G. Wiley and William C. Hayes, Jr. January 1954. 24p. diagrs., tab. (NACA RM L53K27)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD DISTRIBUTION OVER A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.60 TO 1.03. Joseph M. Hallissy, Jr., F. E. West, Jr., and George Liner. May 1954. 162p. diagrs., tabs. (NACA RM L54C17a)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

EFFECTS OF OVERHANG BALANCE ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT TRANSONIC AND SUPERSONIC SPEEDS. Lawrence D. Guy. September 1954. 48p. diagrs., photo. (NACA RM L54G12a)

SOME EFFECTS OF AILERON SPAN, AILERON CHORD, AND WING TWIST ON ROLLING EFFECTIVENESS AS DETERMINED BY ROCKET-POWERED MODEL TESTS AND THEORETICAL ESTIMATES. H. Kurt Strass and Warren A. Tucker. September 1954. 29p. diagrs., photos., tabs. (NACA RM L54G13)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND OPERATING CHARACTERISTICS OF A BELLOWS-ACTUATED SPLIT-FLAP AILERON ON A 60° DELTA WING AT MACH NUMBERS BETWEEN 0.8 AND 1.8. Eugene D. Schult. October 1954. 33p. diagrs., photos. (NACA RM L54H17)

THE EFFECT OF AN OPERATING PROPELLER ON THE AERODYNAMIC CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL OF A VERTICAL-RISING AIRPLANE HAVING AN UNSWEPT WING OF ASPECT RATIO 3. Fred B. Sutton and Donald A. Buell. November 1954. 90p. diagrs., photos., tabs. (NACA RM A52E06)

COMPARISON OF EFFECTS OF AILERONS AND COMBINATIONS OF SPOILER-SLOT-DEFLECTOR ARRANGEMENTS ON SPIN RECOVERY OF SWEPTBACK-WING MODEL HAVING MASS DISTRIBUTED ALONG THE FUSELAGE. Frederick M. Healy and Walter J. Klinar. November 1954. 18p. diagrs., photo., tabs. (NACA RM L54I14)

LATERAL MOTIONS ENCOUNTERED WITH THE DOUGLAS D-558-II ALL-ROCKET RESEARCH AIRPLANE DURING EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Herman O. Ankenbruck and Chester H. Wolowicz. December 1954. 32p. diagrs., photos., tab. (NACA RM H54I27)

ROLLING PERFORMANCE OF THE REPUBLIC YF-84F AIRPLANE AS MEASURED IN FLIGHT. John B. McKay. January 1955. 24p. diagrs., photo., tab. (NACA RM H54G20a)

EFFECTS OF A DETACHED TAB ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT MACH NUMBERS FROM 0.75 TO 1.96. Odell A. Morris and Gertrude C. Westrick. April 1955. 36p. diagrs., photo. (NACA RM L55B15)

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AS MEASURED IN FLIGHT. Thomas R. Sisk and Duane O. Muhleman. May 1955. 55p. diagrs., photos., tabs. (NACA RM H55A17)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF AN AILERON LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. May 1955. 59p. diagrs., photo., tabs. (NACA RM L55B18a)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

SIMULATOR STUDIES OF THE ATTACK PHASE OF AN AUTOMATICALLY CONTROLLED INTERCEPTOR. I - PRELIMINARY STUDIES OF THE LATERAL AND LONGITUDINAL CONTROL SYSTEMS. Albert A. Schy, Ordway B. Gates, Jr., and C. H. Woodling. II - SOME RESULTS OF A STUDY PERFORMED ON THE TYPHOON COMPUTER. Windsor L. Sherman and Leonard Sternfield. August 1955. 24p. diagrs. (NACA RM L55E27a)

COLLECTION AND SUMMARY OF FLAP-TYPE-AILERON ROLLING-EFFECTIVENESS DATA AT ZERO LIFT AS DETERMINED BY ROCKET-POWERED MODEL TESTS AT MACH NUMBERS BETWEEN 0.6 AND 1.6. H. Kurt Strass, Emily W. Stephens, E. M. Fields, and Eugene D. Schult. September 1955. 95p. diagrs., photos., tabs. (NACA RM L55F14)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON AN 80° DELTA-WING MISSILE. Thomas R. Turner and Raymond D. Vogler. November 1955. 32p. diagrs. (NACA RM L55H22)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. January 1956. 176p. diagrs., tabs. (NACA RM L55I29)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A JET CONTROL ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Raymond D. Vogler and Thomas R. Turner. February 1956. 17p. diagrs. (NACA RM L55K09)

SOME EFFECTS OF AILERONS ON THE VARIATION OF AERODYNAMIC CHARACTERISTICS WITH SIDESLIP AT LOW SPEED. Kenneth W. Goodson. March 1956. 40p. diagrs., tab. (NACA RM L55L20)

AN ANALOG STUDY OF THE RELATIVE IMPORTANCE OF VARIOUS FACTORS AFFECTING ROLL COUPLING. Joseph Weil and Richard E. Day. April 1956. 81p. diagrs., photo., tabs. (NACA RM H56A06)

FREE-FLIGHT INVESTIGATION OF THE CONTROL EFFECTIVENESS OF A DIFFERENTIALLY DEFLECTED HORIZONTAL TAIL AT MACH NUMBERS FROM 0.8 TO 1.6. Jesse L. Mitchell and A. James Vitale. April 1956. 25p. diagrs., photo., tabs. (NACA RM L56B20)

BLOWING OVER THE FLAPS AND WING LEADING EDGE OF A THIN 49° SWEPT WING-BODY-TAIL CONFIGURATION IN COMBINATION WITH LEADING-EDGE DEVICES. H. Clyde McLemore and Marvin P. Fink. July 1956. 57p. diagrs., photo. (NACA RM L56E16)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF JET, SPOILER, AND AILERON CONTROLS ON A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Raymond D. Vogler. July 1956. 52p. diagrs., photo., tabs. (NACA RM L56E25)

HINGE MOMENT AND EFFECTIVENESS OF AN UNSWEPT CONSTANT-CHORD CONTROL AND AN OVERHANG-BALANCED, SWEPT HINGE-LINE CONTROL ON AN 80° SWEPT POINTED WING AT MACH NUMBERS FROM 0.75 TO 1.96. Lawrence D. Guy. August 1956. 39p. diagrs., photo. (NACA RM L56F11)

LOW-SPEED INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF A FLAP-TYPE SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. August 1956. 25p. diagrs., tab. (NACA RM L56F18)

FULL-SCALE WIND-TUNNEL TESTS OF A 35° SWEPTBACK-WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS - LONGITUDINAL AND LATERAL STABILITY AND CONTROL. William H. Tolhurst, Jr., and Mark W. Kelly. October 1956. 64p. diagrs., photo., tabs. (NACA RM A56E24)

THE EFFECT OF EXTERNAL STIFFENING RIBS ON THE ROLLING POWER OF AILERONS ON A SWEPT WING. Emily W. Stephens. October 1956. 15p. diagrs., photo., tab. (NACA RM L56D19)

FORCE TEST RESULTS FOR BODY-MOUNTED LATERAL CONTROLS AND SPEED BRAKES ON A 45° SWEPT-WING MODEL AT MACH NUMBERS FROM 0.80 TO 0.98. F. E. West, Jr., and Chris C. Critzos. December 1956. 32p. diagrs., photos., tab. (NACA RM L56I05)

FLIGHT INVESTIGATION OF THE EFFECTIVENESS OF AN AUTOMATIC AILERON TRIM CONTROL DEVICE FOR PERSONAL AIRPLANES. William H. Phillips, Helmut A. Kuehnel, and James B. Whitten. 1957. ii, 15p. diagrs., photos. (NACA Rept. 1304. Supersedes TN 3637)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3.
III - EFFECTS OF TRAILING-EDGE FLAPS. Bruce E. Tinling and A. V. Karpen. July 1957. 37p. diagrs., photos., tabs. (NACA TN 4043. Supersedes RM A54L07)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3.
II - LATERAL AND DIRECTIONAL CHARACTERISTICS. Howard F. Savage and Bruce E. Tinling. August 1957. 82p. diagrs., photo., tabs. (NACA TN 4042. Supersedes RM A55B11)

TRANSITION-FLIGHT INVESTIGATION OF A FOUR-ENGINE-TRANSPORT VERTICAL-TAKE-OFF AIRPLANE MODEL UTILIZING A LARGE FLAP AND EXTENSIBLE VANES FOR REDIRECTING THE PROPELLER SLIPSTREAM. Louis P. Tosti. December 1957. 35p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4131)

A METHOD FOR THE CALCULATION OF THE LATERAL RESPONSE OF AIRPLANES TO RANDOM TURBULENCE. John M. Eggleston and William H. Phillips. February 1958. 34p. diagrs., tab. (NACA TN 4196)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF FLIGHT CHARACTERISTICS OF A SWEPTBACK-WING JET-TRANSPORT AIRPLANE MODEL EQUIPPED WITH AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP. Joseph L. Johnson, Jr. July 1958. 32p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4255)

(1.8.2.3) DIRECTIONAL

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Kenneth W. Goodson and Paul Comisarow. October 17, 1947. 72p. diagrs., photos., tab. (NACA RM L7G31)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LATERAL CONTROL CHARACTERISTICS AT MACH NUMBERS OF 1.40 AND 1.59. Ross B. Robinson. November 10, 1950. 40p. diagrs., photos., tabs. (NACA RM L50I11)

A STUDY OF VISUAL INTERCEPTION ATTACKS ON A NONMANEUVERING AIRPLANE TARGET. Donald C. Cheatham, Charles W. Mathews, and John A. Harper. July 1953. 97p. diagrs., photos., tabs. (NACA RM L53E01)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

STATIC LATERAL STABILITY CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT MACH NUMBERS OF 1.61 AND 2.01. Frederick C. Grant and Ross B. Robinson. November 1953. 39p. diagrs., photo., tabs. (NACA RM L53I29a)

EFFECT OF LARGE DEFLECTIONS OF A CANARD CONTROL AND DEFLECTIONS OF A WING-TIP CONTROL ON THE STATIC-STABILITY AND INDUCED-ROLL CHARACTERISTICS OF A CRUCIFORM CANARD MISSILE AT A MACH NUMBER OF 2.01. M. Leroy Spearman. December 1953. 20p. diagrs., tabs. (NACA RM L53K03)

EFFECTS OF CANOPY, REVISED VERTICAL TAIL, AND A YAW-DAMPER VANE ON THE AERODYNAMIC CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AT A MACH NUMBER OF 2.01. Ross B. Robinson. August 1954. 29p. diagrs., tabs. (NACA RM L54F25)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

EXPLORATORY INVESTIGATION OF THE LOW-SPEED STATIC STABILITY OF A CONFIGURATION EMPLOYING THREE IDENTICAL TRIANGULAR WING PANELS AND A BODY OF EQUAL LENGTH. Noel K. Delany. April 1955. 25p. diagrs., photos. (NACA RM A55C28)

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AS MEASURED IN FLIGHT. Thomas R. Sisk and Duane O. Muhleman. May 1955. 55p. diagrs., photos., tabs. (NACA RM H55A17)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

FREE-FLIGHT INVESTIGATION OF THE CONTROL EFFECTIVENESS OF A DIFFERENTIALLY DEFLECTED HORIZONTAL TAIL AT MACH NUMBERS FROM 0.8 TO 1.6. Jesse L. Mitchell and A. James Vitale. April 1956. 25p. diagrs., photo., tabs. (NACA RM L56B20)

THE SUBSONIC STATIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3.
II - LATERAL AND DIRECTIONAL CHARACTERISTICS. Howard F. Savage and Bruce E. Tinling. August 1957. 82p. diagrs., photo., tabs. (NACA TN 4042. Supersedes RM A55B11)

TRANSITION-FLIGHT INVESTIGATION OF A FOUR-ENGINE-TRANSPORT VERTICAL-TAKE-OFF AIRPLANE MODEL UTILIZING A LARGE FLAP AND EXTENSIBLE VANES FOR REDIRECTING THE PROPELLER SLIPSTREAM. Louis P. Tosti. December 1957. 35p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4131)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. January 1958. 45p. diagrs., photos., tab. (NACA TN 4193. Supersedes RM L54D09)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF SEVERAL JET DEFLECTORS AT PRIMARY-NOZZLE PRESSURE RATIOS UP TO 3.0. Jack G. McArdle. June 1958. ii, 107p. diagrs., photos., tabs. (NACA TN 4264)

(1.8.2.4) AIR BRAKES

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

EFFECT OF FUSELAGE AIR BRAKES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF A SWEPT-WING FIGHTER MODEL AT TRANSONIC SPEEDS. Donald D. Arabian. April 1956. 22p. diagrs., photos. (NACA RM L56A25a)

FORCE TEST RESULTS FOR BODY-MOUNTED LATERAL CONTROLS AND SPEED BRAKES ON A 45° SWEPT-WING MODEL AT MACH NUMBERS FROM 0.80 TO 0.98. F. E. West, Jr., and Chris C. Critzos. December 1956. 32p. diagrs., photos., tab. (NACA RM L56I05)

INVESTIGATION OF DEFLECTORS AS GUST ALLEVIATORS ON A 0.09-SCALE MODEL OF THE BELL X-5 AIRPLANE WITH VARIOUS WING SWEEP ANGLES FROM 20° TO 60° AT MACH NUMBERS FROM 0.40 TO 0.90. Delwin R. Croom and Jarrett K. Huffman. November 1957. 28p. diagrs. (NACA TN 4175)

(1.8.2.5) HINGE MOMENTS

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS AT SUBSONIC SPEEDS OF A CONSTANT-CHORD ELEVON ON A WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. December 5, 1949. 44p. diagrs., photos., tab. (NACA RM A9I27)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. STABILITY AND CONTROL CHARACTERISTICS. William T. Hamilton and Joseph W. Cleary. April 21, 1950. 129p. diagrs., photos., tabs. (NACA RM A50A03)

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LATERAL CONTROL CHARACTERISTICS AT MACH NUMBERS OF 1.40 AND 1.59. Ross B. Robinson. November 10, 1950. 40p. diagrs., photos., tabs. (NACA RM L50I11)

AN INVESTIGATION AT MACH NUMBERS OF 1.40 AND 1.59 OF THE EFFECTS OF AILERON PROFILE ON THE AERODYNAMIC CHARACTERISTICS OF A COMPLETE MODEL OF A SUPERSONIC AIRCRAFT CONFIGURATION. M. Leroy Spearman and Robert A. Webster. January 15, 1951. 40p. diagrs., photos., tabs. (NACA RM L50J31)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

HINGE-MOMENT CHARACTERISTICS FOR SEVERAL TIP CONTROLS ON A 60° SWEPTBACK DELTA WING AT MACH NUMBER 1.61. K. R. Czarnecki and Douglas R. Lord. January 1953. 31p. diagrs., photos. (NACA RM L52K28)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

LIFT, DRAG, AND HINGE MOMENTS AT SUPERSONIC SPEEDS OF AN ALL-MOVABLE TRIANGULAR WING AND BODY COMBINATION. William C. Drake. September 1953. 38p. diagrs., photos., tabs. (NACA RM A53F22)

A FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.67 TO 1.81 OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE CONFIGURATION HAVING AN ALL-MOVABLE TAIL. Martin T. Moul and Hal T. Baber, Jr. October 1953. 43p. diagrs., photo. (NACA RM L53G29)

SUBSONIC AND SUPERSONIC HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNBALANCED LATERAL CONTROL HAVING LOW THEORETICAL HINGE MOMENTS AT SUPERSONIC SPEEDS. Kennith L. Goin and William E. Palmer. October 1953. 55p. diagrs., photos. (NACA RM L53G31a)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE HINGE-MOMENT AND NORMAL-FORCE PROPERTIES OF A FULL-SPAN, CONSTANT-CHORD, PARTIALLY BALANCED TRAILING-EDGE CONTROL ON A 60° CLIPPED DELTA WING BETWEEN MACH NUMBERS OF 0.50 AND 1.26. C. William Martz and John W. Goslee. October 1953. 33p. diagrs., photos., tab. (NACA RM L53I04)

LOW-SPEED STATIC STABILITY AND CONTROL CHARACTERISTICS OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE EQUIPPED WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. November 1953. 53p. diagrs., photos., tab. (NACA RM L53H27)

AN INVESTIGATION AT MACH NUMBER 2.40 OF FLAP-TYPE CONTROLS EQUIPPED WITH OVERHANG NOSE BALANCES. James N. Mueller. November 1953. 95p. diagrs., photos., tab. (NACA RM L53I21)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF SEVERAL INTERCHANGEABLE TIP CONTROLS ON A 60° DELTA WING AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Odell A. Morris. November 1953. 33p. diagrs., photo., tab. (NACA RM L53J08a)

EFFECTS OF LEADING-EDGE CHORD EXTENSIONS AND AN ALL-MOVABLE HORIZONTAL TAIL ON THE AERODYNAMIC CHARACTERISTICS OF A WING-BODY COMBINATION EMPLOYING A TRIANGULAR WING OF ASPECT RATIO 3 MOUNTED IN A HIGH POSITION AT SUBSONIC AND SUPERSONIC SPEEDS. Benton E. Wetzel and Frank A. Pfyl. January 1954. 35p. diagrs., photo., tabs. (NACA RM A53J14a)

INVESTIGATION OF A TRAILING-EDGE PADDLE-CONTROL SURFACE ON A TRIANGULAR WING OF ASPECT RATIO 2 AT SUBSONIC AND SUPERSONIC SPEEDS. Louis H. Ball. February 1954. 18p. diagrs., tab. (NACA RM A53K20)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.61 OF THE COMPLETE CONFIGURATION EQUIPPED WITH SPOILERS. Clyde V. Hamilton and Cornelius Driver. September 1954. 28p. diagrs. (NACA RM L54F15)

EFFECTS OF OVERHANG BALANCE ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT TRANSONIC AND SUPERSONIC SPEEDS. Lawrence D. Guy. September 1954. 48p. diagrs., photo. (NACA RM L54G12a)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND OPERATING CHARACTERISTICS OF A BELLOWS-ACTUATED SPLIT-FLAP AILERON ON A 60° DELTA WING AT MACH NUMBERS BETWEEN 0.8 AND 1.8. Eugene D. Schult. October 1954. 33p. diagrs., photos. (NACA RM L54H17)

EFFECTS OF A DETACHED TAB ON THE HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF AN UNSWEPT TRAILING-EDGE CONTROL ON A 60° DELTA WING AT MACH NUMBERS FROM 0.75 TO 1.96. Odell A. Morris and Gertrude C. Westrick. April 1955. 36p. diagrs., photo. (NACA RM L55B15)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. January 1956. 176p. diagrs., tabs. (NACA RM L55I29)

AERODYNAMIC LOADINGS ASSOCIATED WITH SWEPT AND UNSWEPT SPOILERS ON A FLAT PLATE AT MACH NUMBERS OF 1.61 AND 2.01. Douglas R. Lord and K. R. Czarnecki. March 1956. 174p. diagrs., photos., tabs. (NACA RM L55L12)

AERODYNAMIC DAMPING AT MACH NUMBERS OF 1.3 AND 1.6 OF A CONTROL SURFACE ON A TWO-DIMENSIONAL WING BY THE FREE-OSCILLATION METHOD. W. J. Tuovila and Robert W. Hess. May 1956. 21p. diagrs., tabs. (NACA RM L56A26a)

HINGE MOMENT AND EFFECTIVENESS OF AN UNSWEPT CONSTANT-CHORD CONTROL AND AN OVERHANG-BALANCED, SWEPT HINGE-LINE CONTROL ON AN 80° SWEPT POINTED WING AT MACH NUMBERS FROM 0.75 TO 1.96. Lawrence D. Guy. August 1956. 39p. diagrs., photo. (NACA RM L56F11)

EXPERIMENTAL HINGE MOMENTS ON FREELY OSCILLATING FLAP-TYPE CONTROL SURFACES. C. William Martz. October 1956. 29p. diagrs., photos., tab. (NACA RM L56G20)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1957. 48p. diagrs., photos., tabs. (NACA TN 4044. Supersedes RM A55E04)

AN ANALYTICAL INVESTIGATION OF THE GUST-ALLEVIATING PROPERTIES OF A SIMPLE PITCH DAMPER. Norman L. Crabill. December 1957. 47p. diagrs., tab. (NACA TN 4173)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. January 1958. 45p. diagrs., photos., tab. (NACA TN 4193. Supersedes RM L54D09)

SURFACE PRESSURE DISTRIBUTIONS ON A LARGE-SCALE 49° SWEPTBACK WING-BODY-TAIL CONFIGURATION WITH BLOWING APPLIED OVER THE FLAPS AND WING LEADING EDGE. H. Clyde McLemore and Marvin P. Fink. February 1958. 129p. diagrs., photo., tabs. (NACA RM L57K25)

(1.8.2.6) AUTOMATIC

A PRELIMINARY FLIGHT INVESTIGATION OF THE EFFECT OF SNAKING OSCILLATIONS ON THE PILOTS' OPINIONS OF THE FLYING QUALITIES OF A FIGHTER AIRPLANE. Arnold R. Beckhardt, John A. Harper, and William L. Alford. September 26, 1950. 31p. diagrs., photos., tabs. (NACA RM L50E17a)

THEORETICAL INVESTIGATION OF THE PERFORMANCE OF PROPORTIONAL NAVIGATION GUIDANCE SYSTEMS - EFFECT OF MISSILE CONFIGURATION ON THE SPEED OF RESPONSE. Marvin Abramovitz. January 1953. 20p. diagrs., tabs. (NACA RM A52J22)

A THEORETICAL STUDY OF THE EFFECT OF CONTROL-DEFLECTION AND CONTROL-RATE LIMITATIONS ON THE NORMAL ACCELERATION AND ROLL RESPONSE OF A SUPERSONIC INTERCEPTOR. Howard F. Matthews and Stanley F. Schmidt. April 1953. 28p. photos., diagrs., tabs. (NACA RM A53B11)

THE INTERPRETATION OF NONLINEAR PITCHING MOMENTS IN RELATION TO THE PITCH-UP PROBLEM. George S. Campbell and Joseph Weil. October 1953. 32p. diagrs., tabs. (NACA RM L53I02)

A THEORETICAL INVESTIGATION OF THE EFFECT OF AUXILIARY DAMPING ON THE LONGITUDINAL RESPONSE OF A TRANSONIC BOMBER CONFIGURATION IN FLIGHT THROUGH CONTINUOUS TURBULENCE. T. F. Bridgland, Jr. March 1955. 26p. diagrs., tab. (NACA RM L54K15a)

A THEORETICAL INVESTIGATION OF A COMPENSATING NETWORK WITH APPLICATION TO ROLL CONTROL SYSTEMS FOR AUTOMATIC INTERCEPTORS. Windsor L. Sherman. July 1955. 64p. diagrs., tab. (NACA RM L55E20)

APPLICATION OF STATISTICAL THEORY TO BEAM-RIDER GUIDANCE IN THE PRESENCE OF NOISE. I - WIENER FILTER THEORY. Elwood C. Stewart. August 1955. 40p. diagrs., tabs. (NACA RM A55E11)

SIMULATOR STUDIES OF THE ATTACK PHASE OF AN AUTOMATICALLY CONTROLLED INTERCEPTOR. I - PRELIMINARY STUDIES OF THE LATERAL AND LONGITUDINAL CONTROL SYSTEMS. Albert A. Schy, Ordway B. Gates, Jr., and C. H. Woodling. II - SOME RESULTS OF A STUDY PERFORMED ON THE TYPHOON COMPUTER. Windsor L. Sherman and Leonard Sternfield. August 1955. 24p. diagrs. (NACA RM L55E27a)

ANALYSIS OF EFFECTS OF AIRPLANE CHARACTERISTICS AND AUTOPILOT PARAMETERS ON A ROLL-COMMAND SYSTEM WITH AILERON RATE AND DEFLECTION LIMITING. Albert A. Schy and Ordway B. Gates, Jr. September 1955. 68p. diagrs., tab. (NACA RM L55E18)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AUTOMATIC-PILOT CONTROL SYSTEMS. S. A. Sjoberg. September 1955. 12p. diagrs., tabs. (NACA RM L55F01b)

ANALYSIS OF A FLIGHT INVESTIGATION AT SUPERSONIC SPEEDS OF A SIMPLE HOMING SYSTEM. Robert A. Gardiner, Clarence L. Gillis, and G. B. Graves, Jr. January 1956. 55p. diagrs., photos. (NACA RM L55J28)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AN ATTITUDE TYPE OF AUTOMATIC PILOT. S. A. Sjoberg, Walter R. Russell, and William L. Alford. April 1956. 60p. diagrs., photos., tabs. (NACA RM L56A12)

AN EVALUATION OF AN AEROMECHANICAL METHOD OF MINIMIZING SERVO-MISSILE TRANSFER-FUNCTION VARIATIONS WITH FLIGHT CONDITION. Martin L. Nason. April 1956. 41p. diagrs., tabs. (NACA RM L56A31)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

ANALYTICAL INVESTIGATION OF ACCELERATION RESTRICTION IN A FIGHTER AIRPLANE WITH AN AUTOMATIC CONTROL SYSTEM. James T. Matthews, Jr. January 1958. 24p. diagrs. (NACA TN 4179)

MEASURED AND PREDICTED DYNAMIC RESPONSE CHARACTERISTICS OF A FLEXIBLE AIRPLANE TO ELEVATOR CONTROL OVER A FREQUENCY RANGE INCLUDING THREE STRUCTURAL MODES. Henry A. Cole, Jr., and Euclid C. Holleman. February 1958. 81p. diagrs., photo., tabs. (NACA TN 4147)

APPLICATION OF STATISTICAL THEORY TO BEAM-RIDER GUIDANCE IN THE PRESENCE OF NOISE. II - MODIFIED WIENER FILTER THEORY. Elwood C. Stewart. June 1958. (i), 48p. diagrs., tabs. (NACA TN 4278. Supersedes RM A55E11a)

(1.8.2.7) JET REACTION

INTERNAL CHARACTERISTICS AND PERFORMANCE OF SEVERAL JET DEFLECTORS AT PRIMARY-NOZZLE PRESSURE RATIOS UP TO 3.0. Jack G. McArdle. June 1958. ii, 107p. diagrs., photos., tabs. (NACA TN 4264)

INTERNAL CHARACTERISTICS AND PERFORMANCE OF AN AERODYNAMICALLY CONTROLLED, VARIABLE-DISCHARGE CONVERGENT NOZZLE. Jack G. McArdle. July 1958. 33p. diagrs., photo., tabs. (NACA TN 4312)

EXPERIMENTAL INVESTIGATION OF AXIAL AND NORMAL FORCE CHARACTERISTICS OF SKEWED NOZZLES. David J. Carter, Jr., and Allen R. Vick. September 1958. 40p. diagrs., photos. (NACA TN 4336)

(1.8.3) SPINNING

AN INVESTIGATION IN THE LANGLEY 20-FOOT FREE-SPINNING TUNNEL OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/30-SCALE MODEL OF THE BELL X-2 AIRPLANE. Lawrence J. Gale. July 20, 1949. 15p. diagrs., photo., tabs. (NACA RM L9G15a)

SUMMARY OF SPIN AND RECOVERY CHARACTERISTICS OF 12 MODELS OF FLYING-WING AND UNCONVENTIONAL-TYPE AIRPLANES. Ralph W. Stone, Jr., and Burton E. Hultz. March 1, 1951. 95p. diagrs., photo., tabs. (NACA RM L50L29)

FREE-SPINNING TUNNEL INVESTIGATION OF A 1/20-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE. Burton E. Hultz. December 26, 1951. 23p. diagrs., photos., tab. (NACA RM L51K12)

FREE-SPINNING-TUNNEL INVESTIGATION TO DETERMINE THE EFFECT OF SPINS AND RECOVERIES OF WING LEADING-EDGE CHORD-EXTENSIONS AND DROOPED LEADING-EDGE FLAPS ON SCALE MODELS OF TWO SWEPTBACK-WING FIGHTER AIRPLANES. Jack H. Wilson and Walter J. Klinar. May 1953. 28p. photo., diagrs., tabs. (NACA RM L53C06)

COMPARISON OF EFFECTS OF AILERONS AND COMBINATIONS OF SPOILER-SLOT-DEFLECTOR ARRANGEMENTS ON SPIN RECOVERY OF SWEPTBACK-WING MODEL HAVING MASS DISTRIBUTED ALONG THE FUSELAGE. Frederick M. Healy and Walter J. Klinar. November 1954. 18p. diagrs., photo., tabs. (NACA RM L54I14)

SPINNING AND RELATED PROBLEMS AT HIGH ANGLES OF ATTACK FOR HIGH-SPEED AIRPLANES. Walter J. Klinar. March 1956. 8p. diagrs. (NACA RM L55L23a)

STATUS OF SPIN RESEARCH FOR RECENT AIRPLANE DESIGNS. Anshal I. Neihouse, Walter J. Klinar, and Stanley H. Scher. August 1957. ii, 98p. diagrs., photos., tabs. (NACA RM L57F12)

EFFECT OF FLOW INCIDENCE AND REYNOLDS NUMBER ON LOW-SPEED AERODYNAMIC CHARACTERISTICS OF SEVERAL NONCIRCULAR CYLINDERS WITH APPLICATIONS TO DIRECTIONAL STABILITY AND SPINNING. Edward C. Polhamus. January 1958. 54p. diagrs., photo., tab. (NACA TN 4176)

(1.8.4) STALLING

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 42.8° SWEPTBACK CIRCULAR-ARC WING WITH ASPECT RATIO 4.00, TAPER RATIO 0.50, AND SWEPTBACK TAIL SURFACES. Joseph Weil, Paul Comisarow, and Kenneth W. Goodson. October 17, 1947. 84p. diagrs., photos., tab. (NACA RM L7G28)

AN INVESTIGATION OF THE LONGITUDINAL CHARACTERISTICS OF THE X-3 CONFIGURATION WITH WING AND HORIZONTAL TAIL SURFACES OF ASPECT RATIO 3.0 BY MEANS OF ROCKET-PROPELLED MODELS. RESULTS AT HIGH LIFT COEFFICIENTS. Robert F. Peck and Jesse L. Mitchell. August 27, 1951. 34p. diagrs., photos. (NACA RM L51G10)

LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF MODEL AIRPLANE CONFIGURATION EQUIPPED WITH A SCALED X-1 AIRPLANE WING. James H. Parks. April 1952. 37p. diagrs. (NACA RM L51L10a)

CORRELATION OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF ROLL-OFF IN LOW-SPEED STALLS ON A 35° SWEPT-WING AIRCRAFT. Seth B. Anderson. September 1953. 17p. diagrs., photos., tabs. (NACA RM A53G22)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE LOW-SPEED STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. July 1955. 62p. diagrs., photos., tabs. (NACA RM H55E31a)

LARGE-SCALE WIND-TUNNEL TESTS OF AN AIRPLANE MODEL WITH A 45° SWEPTBACK WING OF ASPECT RATIO 2.8 WITH AREA SUCTION APPLIED TO TRAILING-EDGE FLAPS AND WITH SEVERAL WING LEADING-EDGE MODIFICATIONS. David G. Koenig and Kiyoshi Aoyagi. November 1956. 66p. diagrs., photo., tabs. (NACA RM A56H08)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. 1957. iii, 149p. diagrs., tabs. (NACA Rept. 1339. Supersedes RM L52D16)

FLIGHT INVESTIGATION OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE EQUIPPED WITH AN AREA-SUCTION EJECTOR FLAP AND VARIOUS WING LEADING-EDGE DEVICES. Seth B. Anderson, Alan E. Faye, Jr., and Robert C. Innis. September 1957. 28p. diagrs., photos., tab. (NACA RM A57G10)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP AND LEADING-EDGE MODIFICATIONS TO IMPROVE THE HIGH-LIFT CHARACTERISTICS OF AN AIRPLANE MODEL WITH A WING OF 45° SWEEP AND ASPECT RATIO 2.8. David G. Koenig and Kiyoshi Aoyagi. November 1957. 46p. diagrs., photo., tabs. (NACA RM A57H21)

WIND-TUNNEL INVESTIGATION OF THE USE OF LEADING-EDGE AND TRAILING-EDGE AREA-SUCTION FLAPS ON A 13-PERCENT-THICK STRAIGHT WING AND FUSELAGE MODEL. Curt A. Holzhauser. January 1958. 26p. diagrs., photo., tabs. (NACA RM A57K01)

DATA FROM FLOW-FIELD SURVEYS BEHIND A LARGE-SCALE THIN STRAIGHT WING OF ASPECT RATIO 3. William T. Evans. June 1958. 13p. diagrs. (NACA RM A58D17)

(1.8.5)
FLYING QUALITIES

RESULTS OBTAINED DURING EXTENSION OF U.S. AIR FORCE TRANSONIC-FLIGHT TESTS OF XS-1 AIRPLANE. Harold R. Goodman and Hubert M. Drake. November 16, 1948. 12p. diagrs. (NACA RM L8I28)

ESTIMATED TRANSONIC FLYING QUALITIES OF A TAILLESS AIRPLANE BASED ON A MODEL INVESTIGATION. Charles J. Donlan and Richard E. Kuhn. June 8, 1949. 63p. diagrs., photos., tabs. (NACA RM L9D08)

FLIGHT TESTS OF A MODEL HAVING SELF-SUPPORTING FUEL-CARRYING PANELS HINGED TO THE WING TIPS. Robert E. Shanks and David C. Grana. November 2, 1949. 10p. diagrs., tab. (NACA RM L9I07a)

INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A MODEL OF A FIGHTER AIRPLANE WITHOUT A HORIZONTAL TAIL AND EQUIPPED WITH EITHER SINGLE OR TWIN VERTICAL TAILS. John W. Draper and Robert W. Rose. November 15, 1949. 20p. diagrs., photos., tab. (NACA RM L9J07a)

A PRELIMINARY FLIGHT INVESTIGATION OF THE EFFECT OF SNAKING OSCILLATIONS ON THE PILOTS' OPINIONS OF THE FLYING QUALITIES OF A FIGHTER AIRPLANE. Arnold R. Beckhardt, John A. Harper, and William L. Alford. September 26, 1950. 31p. diagrs., photos., tabs. (NACA RM L50E17a)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A HIGH-ASPECT-RATIO BOMBER MODEL WITH SELF-SUPPORTING FREE-FLOATING FUEL TANKS ATTACHED TO THE WING TIPS. Charles V. Bennett and Robert B. Cadman. August 1951. 12p. diagrs., tab. (NACA RM L51E17)

HANDLING QUALITIES OF HIGH-SPEED AIRPLANES. W. C. Williams and A. S. Crossfield. January 1952. 17p. diagrs. (NACA RM L52A08)

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A HIGH-ASPECT-RATIO BOMBER MODEL WITH A SWEPTBACK-WING FIGHTER MODEL ATTACHED TO EACH WING TIP. Charles V. Bennett and Peter C. Boisseau. September 1952. 17p. diagrs., tabs. (NACA RM L52E08)

SOME MEASUREMENTS OF FLYING QUALITIES OF A DOUGLAS D-558-II RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC SPEEDS. Herman O. Ankenbruck and Theodore E. Dahlen. March 1953. 25p. diagrs., photos., tab. (NACA RM L53A06)

SOME MEASUREMENTS OF THE BUFFET REGION OF A SWEPT-WING RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC MACH NUMBERS. Thomas F. Baker. May 1953. 14p. diagrs., photos., tab. (NACA RM L53D06)

MEASUREMENTS OBTAINED DURING THE GLIDE-FLIGHT PROGRAM OF THE BELL X-2 RESEARCH AIRPLANE. Richard E. Day. July 30, 1953. 27p. diagrs., photos., tabs. (NACA RM L53G03a)

CORRELATION OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF ROLL-OFF IN LOW-SPEED STALLS ON A 35° SWEPT-WING AIRCRAFT. Seth B. Anderson. September 1953. 17p. diagrs., photos., tabs. (NACA RM A53G22)

SOME MEASUREMENTS OF BUFFETING ENCOUNTERED BY A DOUGLAS D-558-II RESEARCH AIRPLANE IN THE MACH NUMBER RANGE FROM 0.5 TO 0.95. Thomas F. Baker. November 1953. 22p. diagrs., photos., tabs. (NACA RM L53I17)

DETERMINATION OF LONGITUDINAL STABILITY IN SUPERSONIC ACCELERATED MANEUVERS FOR THE DOUGLAS D-558-II RESEARCH AIRPLANE. Herman O. Ankenbruck. February 1954. 29p. diagrs., photos., tab. (NACA RM L53J20)

MEASURED DATA PERTAINING TO BUFFETING AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas F. Baker. February 1954. 16p. diagrs., photos., tab. (NACA RM L53L10)

LONGITUDINAL STABILITY CHARACTERISTICS IN ACCELERATED MANEUVERS AT SUBSONIC AND TRANSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE EQUIPPED WITH A LEADING-EDGE WING CHORD-EXTENSION. Jack Fischel and Cyril D. Brunn. October 1954. 62p. diagrs., photos., tab. (NACA RM H54H16)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. STATIC LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.89. M. Leroy Spearman and Edward B. Palazzo. October 1954. 24p. diagrs., photo., tab. (NACA RM L54G26a)

ANALYTICAL STUDY OF THE EFFECT OF CENTER-OF-GRAVITY POSITION ON THE RESPONSE TO LONGITUDINAL CONTROL IN LANDING APPROACHES OF A SWEPT-WING AIRPLANE OF LOW ASPECT RATIO HAVING NO HORIZONTAL TAIL. Ralph W. Stone, Jr. October 1954. 35p. diagrs., tabs. (NACA RM L54H04)

DETERMINATION OF LONGITUDINAL HANDLING QUALITIES OF THE D-558-II RESEARCH AIRPLANE AT TRANSONIC AND SUPERSONIC SPEEDS TO A MACH NUMBER OF ABOUT 2.0. Herman O. Ankenbruck. November 1954. 25p. diagrs., photos., tab. (NACA RM H54G29a)

LATERAL MOTIONS ENCOUNTERED WITH THE DOUGLAS D-558-II ALL-ROCKET RESEARCH AIRPLANE DURING EXPLORATORY FLIGHTS TO A MACH NUMBER OF 2.0. Herman O. Ankenbruck and Chester H. Wolowicz. December 1954. 32p. diagrs., photos., tab. (NACA RM H54I27)

RESULTS OF MEASUREMENTS MADE DURING THE APPROACH AND LANDING OF SEVEN HIGH-SPEED RESEARCH AIRPLANES. Wendell H. Stillwell. February 1955. 25p. diagrs., tab. (NACA RM H54K24)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

LATERAL STABILITY AND CONTROL CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AS MEASURED IN FLIGHT. Thomas R. Sisk and Duane O. Muhleman. May 1955. 55p. diagrs., photos., tabs. (NACA RM H55A17)

STABILITY AND CONTROL CHARACTERISTICS OBTAINED DURING DEMONSTRATION OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Richard E. Day and Jack Fischel. July 1955. 51p. diagrs., photos., tab. (NACA RM H55E16)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AUTOMATIC-PILOT CONTROL SYSTEMS. S. A. Sjoberg. September 1955. 12p. diagrs., tabs. (NACA RM L55F01b)

FLIGHT MEASUREMENTS OF DIRECTIONAL STABILITY TO A MACH NUMBER OF 1.48 FOR AN AIRPLANE TESTED WITH THREE DIFFERENT VERTICAL TAIL CONFIGURATIONS. Hubert M. Drake, Thomas W. Finch, and James R. Peele. October 1955. 22p. diagrs., photos., tab. (NACA RM H55G26)

SOME RECENT RESEARCH ON THE HANDLING QUALITIES OF AIRPLANES. Walter C. Williams and William H. Phillips. February 1956. 19p. diagrs. (NACA RM H55L29a)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AN ATTITUDE TYPE OF AUTOMATIC PILOT. S. A. Sjoberg, Walter R. Russell, and William L. Alford. April 1956. 60p. diagrs., photos., tabs. (NACA RM L56A12)

EFFECT OF SEVERAL WING MODIFICATIONS ON THE SUBSONIC AND TRANSONIC LONGITUDINAL HANDLING QUALITIES OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Jack Fischel and Donald Reisert. June 1956. 57p. diagrs., photos., tabs. (NACA RM H56C30)

EFFECT OF WING HEIGHT AND DIHEDRAL ON THE LATERAL STABILITY CHARACTERISTICS AT LOW LIFT OF A 45° SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM TIME-VECTOR ANALYSES OF ROCKET-PROPELLED-MODEL FLIGHTS AT MACH NUMBERS FROM 0.7 TO 1.3. Clarence L. Gillis and Rowe Chapman, Jr. September 1956. 70p. diagrs., photos., tabs. (NACA RM L56E17)

REVIEW AND INVESTIGATION OF UNSATISFACTORY CONTROL CHARACTERISTICS INVOLVING INSTABILITY OF PILOT-AIRPLANE COMBINATION AND METHODS FOR PREDICTING THESE DIFFICULTIES FROM GROUND TESTS. William H. Phillips, B. Porter Brown, and James T. Matthews, Jr. August 1957. 57p. diagrs. (NACA TN 4064. Supersedes RM L53F17a)

FLIGHT-TEST INVESTIGATION ON THE LANGLEY CONTROL-LINE FACILITY OF A MODEL OF A PROPELLER-DRIVEN TAIL-SITTER-TYPE VERTICAL-TAKE-OFF AIRPLANE WITH DELTA WING DURING RAPID TRANSITIONS. Robert O. Schade. August 1957. 19p. diagrs., photo., tab. (NACA TN 4070)

FLIGHT INVESTIGATION OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE EQUIPPED WITH AN AREA-SUCTION EJECTOR FLAP AND VARIOUS WING LEADING-EDGE DEVICES. Seth B. Anderson, Alan E. Faye, Jr., and Robert C. Innis. September 1957. 28p. diagrs., photos., tab. (NACA RM A57G10)

EFFECT OF GROUND PROXIMITY ON THE AERODYNAMIC CHARACTERISTICS OF A FOUR-ENGINE VERTICAL-TAKE-OFF-AND-LANDING TRANSPORT-AIRPLANE MODEL WITH TILTING WING AND PROPELLERS. William A. Newsom, Jr. October 1957. 15p. diagrs., photo., tab. (NACA TN 4124)

FLIGHT INVESTIGATION OF THE TRANSONIC LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Jack Fischel, Euclid C. Holleman, and Robert A. Tremant. December 1957. 61p. diagrs., photos., tab. (NACA RM H57I05)

TRANSITION-FLIGHT INVESTIGATION OF A FOUR-ENGINE-TRANSPORT VERTICAL-TAKE-OFF AIRPLANE MODEL UTILIZING A LARGE FLAP AND EXTENSIBLE VANES FOR REDIRECTING THE PROPELLER SLIPSTREAM. Louis P. Tosti. December 1957. 35p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4131)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. January 1958. 45p. diagrs., photos., tab. (NACA TN 4193. Supersedes RM L54D09)

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. January 1958. 30p. diagrs., photo., tabs. (NACA TN 4199. Supersedes RM L53F08a)

(1.8.6)
MASS AND GYROSCOPIC PROBLEMS

WIND-TUNNEL INVESTIGATION OF THE STABILITY OF THE JETTISONABLE NOSE SECTION OF THE XS-2 AIRPLANE. Stanley H. Scher and Roscoe H. Goodwin. October 14, 1948. 19p. diagrs., photos., tabs. (NACA RM L8I14)

AN INVESTIGATION IN THE LANGLEY 20-FOOT FREE-SPINNING TUNNEL OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/30-SCALE MODEL OF THE BELL X-2 AIRPLANE. Lawrence J. Gale. July 20, 1949. 15p. diagrs., photo., tabs. (NACA RM L9G15a)

SUMMARY OF SPIN AND RECOVERY CHARACTERISTICS OF 12 MODELS OF FLYING-WING AND UNCONVENTIONAL-TYPE AIRPLANES. Ralph W. Stone, Jr., and Burton E. Hultz. March 1, 1951. 95p. diagrs., photo., tabs. (NACA RM L50L29)

FREE-SPINNING TUNNEL INVESTIGATION OF A 1/20-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE. Burton E. Hultz. December 26, 1951. 23p. diagrs., photos., tab. (NACA RM L51K12)

EXPLORATORY ROCKET FLIGHT TESTS TO INVESTIGATE THE USE OF A FREELY SPINNING MONOPLANE TAIL FOR STABILIZING A BODY. Paul E. Purser and Joseph E. Stevens. October 1952. 25p. diagrs., photos., tab. (NACA RM L52I05a)

FREE-SPINNING-TUNNEL INVESTIGATION TO DETERMINE THE EFFECT OF SPINS AND RECOVERIES OF WING LEADING-EDGE CHORD-EXTENSIONS AND DROOPED LEADING-EDGE FLAPS ON SCALE MODELS OF TWO SWEPTBACK-WING FIGHTER AIRPLANES. Jack H. Wilson and Walter J. Klinar. May 1953. 28p. photo., diagrs., tabs. (NACA RM L53C06)

COMPARISON OF EFFECTS OF AILERONS AND COMBINATIONS OF SPOILER-SLOT-DEFLECTOR ARRANGEMENTS ON SPIN RECOVERY OF SWEPTBACK-WING MODEL HAVING MASS DISTRIBUTED ALONG THE FUSELAGE. Frederick M. Healy and Walter J. Klinar. November 1954. 18p. diagrs., photo., tabs. (NACA RM L54I14)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos.. tabs. (NACA RM H55A13)

EFFECT OF AUTOMATIC STABILIZATION ON THE SIDESLIP AND ANGLE-OF-ATTACK DISTURBANCES IN ROLLING MANEUVERS. Ordway B. Gates, Jr., Joseph Weil, and C. H. Woodling. July 1955. 18p. diagrs. (NACA RM L55E25b)

SIMULATOR STUDIES OF THE ATTACK PHASE OF AN AUTOMATICALLY CONTROLLED INTERCEPTOR. I - PRELIMINARY STUDIES OF THE LATERAL AND LONGITUDINAL CONTROL SYSTEMS. Albert A. Schy, Ordway B. Gates, Jr., and C. H. Woodling. II - SOME RESULTS OF A STUDY PERFORMED ON THE TYPHOON COMPUTER. Windsor L. Sherman and Leonard Sternfield. August 1955. 24p. diagrs. (NACA RM L55E27a)

SPINNING AND RELATED PROBLEMS AT HIGH ANGLES OF ATTACK FOR HIGH-SPEED AIRPLANES. Walter J. Klinar. March 1956. 8p. diagrs. (NACA RM L55L23a)

AN ANALOG STUDY OF THE RELATIVE IMPORTANCE OF VARIOUS FACTORS AFFECTING ROLL COUPLING. Joseph Weil and Richard E. Day. April 1956. 81p. diagrs., photo., tabs. (NACA RM H56A06)

ANALYSIS OF AN AUTOMATIC CONTROL TO PREVENT ROLLING DIVERGENCE. William H. Phillips. April 1956. 31p. diagrs., tab. (NACA RM L56A04)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

SOME NOTES ON THE VIOLENT LATERAL-LONGITUDINAL COUPLING MOTIONS OF THE DOUGLAS X-3 AIRPLANE IN AILERON ROLLS. Ralph W. Stone, Jr. May 1956. 35p. diagrs., tab. (NACA RM L56C15)

AN ANALOG COMPUTER STUDY OF SEVERAL STABILITY AUGMENTATION SCHEMES DESIGNED TO ALLEVIATE ROLL-INDUCED INSTABILITY. Brent Y. Creer. February 1957. 50p. diagrs., tab. (NACA RM A56H30)

STATUS OF SPIN RESEARCH FOR RECENT AIRPLANE DESIGNS. Anshal I. Neihouse, Walter J. Klinar, and Stanley H. Scher. August 1957. ii, 98p. diagrs., photos., tabs. (NACA RM L57F12)

A SIMPLIFIED METHOD FOR APPROXIMATING THE TRANSIENT MOTION IN ANGLES OF ATTACK AND SIDESLIP DURING A CONSTANT ROLLING MANEUVER. Leonard Sternfield. 1958. ii, 11p. diagrs., tabs. (NACA Rept. 1344. Supersedes RM L56F04)

A THEORETICAL ANALYSIS OF THE EFFECT OF ENGINE ANGULAR MOMENTUM ON LONGITUDINAL AND DIRECTIONAL STABILITY IN STEADY ROLLING MANEUVERS. Ordway B. Gates, Jr., and C. H. Woodling. April 1958. 20p. diagrs., tab. (NACA TN 4249. Supersedes RM L55G05)

APPROXIMATE METHOD FOR CALCULATING MOTIONS IN ANGLES OF ATTACK AND SIDESLIP DUE TO STEP PITCHING- AND YAWING-MOMENT INPUTS DURING STEADY ROLL. Martin T. Moul and Teresa R. Brennan. September 1958. 42p. diagrs., tabs. (NACA TN 4346)

(1.8.8)
AUTOMATIC STABILIZATION

THE EFFECT OF VARIOUS MISSILE CHARACTERISTICS ON AIRFRAME FREQUENCY RESPONSE. Howard F. Matthews and Walter E. McNeill. January 1952. 16p. diagrs. (NACA RM A51L17a)

THEORETICAL INVESTIGATION OF THE PERFORMANCE OF PROPORTIONAL NAVIGATION GUIDANCE SYSTEMS - EFFECT OF MISSILE CONFIGURATION ON THE SPEED OF RESPONSE. Marvin Abramovitz. January 1953. 20p. diagrs., tabs. (NACA RM A52J22)

A THEORETICAL STUDY OF THE EFFECT OF CONTROL-DEFLECTION AND CONTROL-RATE LIMITATIONS ON THE NORMAL ACCELERATION AND ROLL RESPONSE OF A SUPERSONIC INTERCEPTOR. Howard F. Matthews and Stanley F. Schmidt. April 1953. 28p. photos., diagrs., tabs. (NACA RM A53B11)

A STUDY OF VISUAL INTERCEPTION ATTACKS ON A NONMANEUVERING AIRPLANE TARGET. Donald C. Cheatham, Charles W. Mathews, and John A. Harper. July 1953. 97p. diagrs., photos., tabs. (NACA RM L53E01)

THE INTERPRETATION OF NONLINEAR PITCHING MOMENTS IN RELATION TO THE PITCH-UP PROBLEM. George S. Campbell and Joseph Weil. October 1953. 32p. diagrs., tabs. (NACA RM L53I02)

A THEORETICAL INVESTIGATION OF THE EFFECT OF AUXILIARY DAMPING ON THE LONGITUDINAL RESPONSE OF A TRANSONIC BOMBER CONFIGURATION IN FLIGHT THROUGH CONTINUOUS TURBULENCE. T. F. Bridgland, Jr. March 1955. 26p. diagrs., tab. (NACA RM L54K15a)

A THEORETICAL INVESTIGATION OF A COMPENSATING NETWORK WITH APPLICATION TO ROLL CONTROL SYSTEMS FOR AUTOMATIC INTERCEPTORS. Windsor L. Sherman. July 1955. 64p. diagrs., tab. (NACA RM L55E20)

EFFECT OF AUTOMATIC STABILIZATION ON THE SIDESLIP AND ANGLE-OF-ATTACK DISTURBANCES IN ROLLING MANEUVERS. Ordway B. Gates, Jr., Joseph Weil, and C. H. Woodling. July 1955. 18p. diagrs. (NACA RM L55E25b)

APPLICATION OF STATISTICAL THEORY TO BEAM-RIDER GUIDANCE IN THE PRESENCE OF NOISE. I - WIENER FILTER THEORY. Elwood C. Stewart. August 1955. 40p. diagrs., tabs. (NACA RM A55E11)

ANALYSIS OF EFFECTS OF AIRPLANE CHARACTERISTICS AND AUTOPILOT PARAMETERS ON A ROLL-COMMAND SYSTEM WITH AILERON RATE AND DEFLECTION LIMITING. Albert A. Schy and Ordway B. Gates, Jr. September 1955. 68p. diagrs., tab. (NACA RM L55E18)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AUTOMATIC-PILOT CONTROL SYSTEMS. S. A. Sjoberg. September 1955. 12p. diagrs., tabs. (NACA RM L55F01b)

A THEORETICAL ANALYSIS OF A SIMPLE AERODYNAMIC DEVICE TO IMPROVE THE LONGITUDINAL DAMPING OF A CRUCIFORM MISSILE CONFIGURATION AT SUPERSONIC SPEEDS. James E. Clements. October 1955. 36p. diagrs., tab. (NACA RM L55H31)

ANALYSIS OF A FLIGHT INVESTIGATION AT SUPERSONIC SPEEDS OF A SIMPLE HOMING SYSTEM. Robert A. Gardiner, Clarence L. Gillis, and G. B. Graves, Jr. January 1956. 55p. diagrs., photos. (NACA RM L55J28)

AN ANALOG STUDY OF THE RELATIVE IMPORTANCE OF VARIOUS FACTORS AFFECTING ROLL COUPLING. Joseph Weil and Richard E. Day. April 1956. 81p. diagrs., photo., tabs. (NACA RM H56A06)

ANALYSIS OF AN AUTOMATIC CONTROL TO PREVENT ROLLING DIVERGENCE. William H. Phillips. April 1956. 31p. diagrs., tab. (NACA RM L56A04)

A FLIGHT INVESTIGATION OF THE HANDLING CHARACTERISTICS OF A FIGHTER AIRPLANE CONTROLLED THROUGH AN ATTITUDE TYPE OF AUTOMATIC PILOT. S. A. Sjoberg, Walter R. Russell, and William L. Alford. April 1956. 60p. diagrs., photos., tabs. (NACA RM L56A12)

AN EVALUATION OF AN AEROMECHANICAL METHOD OF MINIMIZING SERVO-MISSILE TRANSFER-FUNCTION VARIATIONS WITH FLIGHT CONDITION. Martin L. Nason. April 1956. 41p. diagrs., tabs. (NACA RM L56A31)

FLIGHT INVESTIGATION OF THE EFFECTIVENESS OF AN AUTOMATIC AILERON TRIM CONTROL DEVICE FOR PERSONAL AIRPLANES. William H. Phillips, Helmut A. Kuehnel, and James B. Whitten. 1957. ii, 15p. diagrs., photos. (NACA Rept. 1304. Supersedes TN 3637)

AN ANALOG COMPUTER STUDY OF SEVERAL STABILITY AUGMENTATION SCHEMES DESIGNED TO ALLEVIATE ROLL-INDUCED INSTABILITY. Brent Y. Creer. February 1957. 50p. diagrs., tab. (NACA RM A56H30)

TRANSITION-FLIGHT INVESTIGATION OF A FOUR-ENGINE-TRANSPORT VERTICAL-TAKE-OFF AIRPLANE MODEL UTILIZING A LARGE FLAP AND EXTENSIBLE VANES FOR REDIRECTING THE PROPELLER SLIPSTREAM. Louis P. Tosti. December 1957. 35p. diagrs., photos., tab., film suppl. available on request. (NACA TN 4131)

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. January 1958. 30p. diagrs., photo., tabs. (NACA TN 4199. Supersedes RM L53F08a)

APPLICATION OF STATISTICAL THEORY TO BEAM-RIDER GUIDANCE IN THE PRESENCE OF NOISE. II - MODIFIED WIENER FILTER THEORY. Elwood C. Stewart. June 1958. (i), 48p. diagrs., tabs. (NACA TN 4278. Supersedes RM A55E11a)

(1.8.9) TRACKING

MEASUREMENTS OF THE MOTIONS OF A LARGE SWEPT-WING AIRPLANE IN ROUGH AIR. Richard H. Rhyne. September 1958. 22p. diagrs., photo., tabs. (NACA TN 4310)

(1.9)
Aeroelasticity

A COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF FOUR WING-FUSELAGE CONFIGURATIONS AS DETERMINED FROM DIFFERENT TEST TECHNIQUES. Charles J. Donlan, Boyd C. Myers, II, and Axel T. Mattson. October 4, 1950. 66p. diagrs., photos., tabs. (NACA RM L50H02)

WING-ON AND WING-OFF LONGITUDINAL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A THIN UNSWEPT TAPERED WING OF ASPECT RATIO 3, AS OBTAINED FROM ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.4. Clarence L. Gillis and A. James Vitale. March 14, 1951. 52p. diagrs., photos., tabs. (NACA RM L50K16)

THE EFFECT OF VARIOUS MISSILE CHARACTERISTICS ON AIRFRAME FREQUENCY RESPONSE. Howard F. Matthews and Walter E. McNeill. January 1952. 16p. diagrs. (NACA RM A51L17a)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK-WING-FUSELAGE COMBINATION MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 27p. diagrs., photos. (NACA RM L52G23)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF SPOILER SPAN AND PROJECTION AND WING FLEXIBILITY ON ROLLING EFFECTIVENESS AND DRAG OF PLAIN SPOILERS ON A TAPERED SWEPTBACK WING AT MACH NUMBERS BETWEEN 0.6 AND 1.6. Eugene D. Schult and E. M. Fields. October 1952. 30p. diagrs., photo., tab. (NACA RM L52H06a)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

SOME APPROXIMATE METHODS FOR ESTIMATING THE EFFECTS OF AEROELASTIC BENDING OF ROCKET-PROPELLED MODEL-BOOSTER COMBINATIONS. Richard G. Arbic, George White, and Warren Gillespie, Jr. March 1953. 40p. diagrs., photos., tabs. (NACA RM L53A08)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

INVESTIGATION OF WING FLUTTER AT TRANSONIC SPEEDS FOR SIX SYSTEMATICALLY VARIED WING PLAN FORMS. George W. Jones, Jr., and Hugh C. DuBose. August 1953. 32p. diagrs., photos., 3 tabs. (NACA RM L53G10a)

AN ENGINEERING METHOD FOR THE DETERMINATION OF AEROELASTIC EFFECTS UPON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPT WINGS. H. Kurt Strass and Emily W. Stephens. November 1953. 82p. diagrs., tabs. (NACA RM L53H14)

COMPARISON OF EXPERIMENTAL WITH CALCULATED RESULTS FOR THE LIFTING EFFECTIVENESS OF A FLEXIBLE 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AT MACH NUMBERS FROM 0.8 TO 1.3. Richard E. Walters. April 1954. 35p. diagrs., photos., tab. (NACA RM L54B16)

SOME EFFECTS OF AILERON SPAN, AILERON CHORD, AND WING TWIST ON ROLLING EFFECTIVENESS AS DETERMINED BY ROCKET-POWERED MODEL TESTS AND THEORETICAL ESTIMATES. H. Kurt Strass and Warren A. Tucker. September 1954. 29p. diagrs., photos., tabs. (NACA RM L54G13)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A CANARD CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AND NACA 65A009 AIRFOIL SECTION. A. James Vitale and John C. McFall, Jr. November 1954. 24p. diagrs., photos., tab. (NACA RM L54I01)

FREE-FLIGHT INVESTIGATION, INCLUDING SOME EFFECTS OF WING AEROELASTICITY, OF THE ROLLING EFFECTIVENESS OF AN ALL-MOVABLE HORIZONTAL TAIL WITH DIFFERENTIAL INCIDENCE AT MACH NUMBERS FROM 0.6 TO 1.5. Roland D. English. January 1955. 11p. diagrs., photo. (NACA RM L54K30)

STUDY OF SOME EFFECTS OF STRUCTURAL FLEXIBILITY ON THE LONGITUDINAL MOTIONS AND LOADS AS OBTAINED FROM FLIGHT MEASUREMENTS OF A SWEPT-WING BOMBER. James J. Donegan and Carl R. Huss. May 1955. 53p. diagrs., tabs. (NACA RM L54L16)

THE EFFECT OF EXTERNAL STIFFENING RIBS ON THE ROLLING POWER OF AILERONS ON A SWEPT WING. Emily W. Stephens. October 1956. 15p. diagrs., photo., tab. (NACA RM L56D19)

AN ANALYSIS OF THE EFFECTS OF AEROELASTICITY ON STATIC LONGITUDINAL STABILITY AND CONTROL OF A SWEPT-WING AIRPLANE. Richard B. Skoog. 1957. ii, 12p. diagrs. (NACA Rept. 1298. Supersedes RM A51C19)

ON PANEL FLUTTER AND DIVERGENCE OF INFINITELY LONG UNSTIFFENED AND RING-STIFFENED THIN-WALLED CIRCULAR CYLINDERS. Robert W. Leonard and John M. Hedgepeth. 1957. ii, 19p. diagrs. (NACA Rept. 1302. Supersedes TN 3638)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

DETERMINATION OF LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS FROM FREE-FLIGHT MODEL TESTS WITH RESULTS AT TRANSONIC SPEEDS FOR THREE AIRPLANE CONFIGURATIONS. Clarence L. Gillis and Jesse L. Mitchell. 1957. ii, 28p. diagrs., photos., tabs. (NACA Rept. 1337)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. October 1957. 25p. diagrs., photos. (NACA TN 4174. Supersedes RM L53B25a)

MEASURED AND PREDICTED DYNAMIC RESPONSE CHARACTERISTICS OF A FLEXIBLE AIRPLANE TO ELEVATOR CONTROL OVER A FREQUENCY RANGE INCLUDING THREE STRUCTURAL MODES. Henry A. Cole, Jr., and Euclid C. Holleman. February 1958. 81p. diagrs., photo., tabs. (NACA TN 4147)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. May 1958. 45p. diagrs., tabs. (NACA TN 4240. Supersedes RM L53F19)

FLUTTER ANALYSIS OF RECTANGULAR WINGS OF VERY LOW ASPECT RATIO. Robert W. Fralich and John M. Hedgepeth. June 1958. 24p. diagrs. (NACA TN 4245)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF AERODYNAMIC FORCES AND MOMENTS ON LOW-ASPECT-RATIO WINGS UNDERGOING FLAPPING OSCILLATIONS. Donald S. Woolston, Sherman A. Clevenson, and Sumner A. Leadbetter. August 1958. 25p. diagrs., tab. (NACA TN 4302)

ON THE FLUTTER OF CYLINDRICAL SHELLS AND PANELS MOVING IN A FLOW OF GAS. (O Flattere Tsilindricheskikh Obolochek i Panelei Dvizhushchikhsia V Potoke Gaza.) R. D. Stepanov. September 1958. 25p. diagrs., tabs. (NACA TM 1438. Translation from Prikladnaia Matematika i Mekhanika, v. 21, no. 5, 1957, p. 644-657)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. September 1958. 68p. diagrs., photo., tabs. (NACA TN 4005. Supersedes RM L53D24)

MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A SIMPLIFIED T-TAIL OSCILLATING IN YAW ABOUT THE FIN MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. September 1958. 20p. diagrs., tab. (NACA TN 4402)

(1.10)
Parachutes

WIND-TUNNEL INVESTIGATION OF THE STABILITY OF THE JETTISONABLE NOSE SECTION OF THE XS-2 AIRPLANE. Stanley H. Scher and Roscoe H. Goodwin. October 14, 1948. 19p. diagrs., photos., tabs. (NACA RM L8I14)

SUMMARY OF SPIN AND RECOVERY CHARACTERISTICS OF 12 MODELS OF FLYING-WING AND UNCONVENTIONAL-TYPE AIRPLANES. Ralph W. Stone, Jr., and Burton E. Hultz. March 1, 1951. 95p. diagrs., photo., tabs. (NACA RM L50L29)

(2)
HYDRODYNAMICS

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COMPARISON OF HYDRODYNAMIC-IMPACT ACCELERATION AND RESPONSE FOR SYSTEMS WITH SINGLE AND WITH MULTIPLE ELASTIC MODES. Robert W. Miller. February 1958. 30p. diagrs., photos., tabs. (NACA TN 4194)

(2.1)
Theory

COMPARISON WITH THEORY OF LANDING IMPACTS OF A MODEL OF A SEAPLANE INCORPORATING A HYDRO-SKI WITH AND WITHOUT A SHOCK ABSORBER. Edward L. Hoffman. July 1956. 30p. diagrs., photo., tabs. (NACA RM L56D26)

THEORETICAL DETERMINATION OF LOW-DRAG SUPERCAVITATING HYDROFOILS AND THEIR TWO-DIMENSIONAL CHARACTERISTICS AT ZERO CAVITATION NUMBER. Virgil E. Johnson, Jr. September 1957. 29p. diagrs. (NACA RM L57G11a)

IMPACT-LOADS INVESTIGATION OF CHINE-IMMERSED MODEL HAVING A CIRCULAR-ARC TRANSVERSE SHAPE. Philip M. Edge, Jr. September 1957. 35p. diagrs., photo., tab. (NACA TN 4103)

IMPACT-LOADS INVESTIGATION OF A CHINE-IMMERSED MODEL HAVING A LONGITUDINALLY CURVED BOW AND A V-BOTTOM WITH A DEAD-RISE ANGLE OF 30°. Philip M. Edge, Jr., and John S. Mixson. September 1957. 24p. diagrs., photo., tabs. (NACA TN 4106)

ROUGH-WATER IMPACT-LOAD INVESTIGATION OF A CHINE-IMMERSED V-BOTTOM MODEL HAVING A DEAD-RISE ANGLE OF 10°. Melvin F. Markey and Thomas D. Carpini. October 1957. 32p. diagrs., photos., tab. (NACA TN 4123)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ARBITRARY ASPECT RATIO, SUPERCAVITATING HYDROFOILS OPERATING NEAR THE FREE WATER SURFACE. Virgil E. Johnson, Jr. December 1957. 94p. diagrs., photos. (NACA RM L57I16)

A METHOD FOR CALCULATION OF HYDRODYNAMIC LIFT FOR SUBMERGED AND PLANING RECTANGULAR LIFTING SURFACES. Kenneth L. Wadlin and Kenneth W. Christopher. January 1958. 34p. diagrs. (NACA TN 4168)

IMPACT ON A COMPRESSIBLE FLUID. (Udar o szhimaemuiu zhidkost.) I. T. Egorov. February 1958. 12p. diagrs. (NACA TM 1413. Translation from Prikladnaia Matematika i Mekhanika, v. 20, no. 1, 1956, p. 67-72)

HYDRODYNAMIC IMPACT LOADS OF A -20° DEAD-RISE INVERTED-V MODEL AND COMPARISONS WITH LOADS OF A FLAT-BOTTOM MODEL. Philip M. Edge, Jr. August 1958. 36p. diagrs., photo., tabs. (NACA TN 4339)

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. September 1958. 29p. diagrs. (NACA TN 4256. Supersedes RM L54H10)

HYDRODYNAMIC IMPACT LOADS ON 30° AND 60° V-STEP PLAN-FORM MODELS WITH AND WITHOUT DEAD RISE. Philip M. Edge, Jr., and Jean P. Mason. September 1958. 20p. diagrs., photos., tab. (NACA TN 4401)

(2.2)
General Arrangement Studies

CONSIDERATIONS AFFECTING HYDRO-SKI AIRPLANE DESIGN. Kenneth L. Wadlin. November 1953. 14p. diagrs. (NACA RM L53I28b)

THE HYDRODYNAMIC PLANING LIFT OF FOUR SURFACES AS MEASURED IN A 200-FPS FREE JET. John R. McGehee, Bernard Weinflash, and Charles A. Pelz. July 1954. 24p. diagrs., photos. (NACA RM L54F01)

COMPARISON WITH THEORY OF LANDING IMPACTS OF A MODEL OF A SEAPLANE INCORPORATING A HYDRO-SKI WITH AND WITHOUT A SHOCK ABSORBER. Edward L. Hoffman. July 1956. 30p. diagrs., photo., tabs. (NACA RM L56D26)

EFFECT OF INCREASE IN ANGLE OF DEAD RISE ON THE HYDRODYNAMIC QUALITIES OF A SEAPLANE CONFIGURATION INCORPORATING HIGH WING LOADING. Walter J. Kapryan and Irving Weinstein. October 1956. 31p. diagrs., photos., tabs. (NACA RM L56H21)

TANK INVESTIGATION OF A SERIES OF RELATED HYDRO-SKIS AS LOAD-ALLEVIATION DEVICES FOR LANDING A SEAPLANE IN WAVES. Arthur W. Carter, Archibald E. Morse, Jr., and David R. Woodward. December 1956. 33p. diagrs., tabs. (NACA RM L56I25a)

ROUGH-WATER IMPACT-LOAD INVESTIGATION OF A CHINE-IMMERSED V-BOTTOM MODEL HAVING A DEAD-RISE ANGLE OF 10^{0}. Melvin F. Markey and Thomas D. Carpini. October 1957. 32p. diagrs., photos., tab. (NACA TN 4123)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ARBITRARY ASPECT RATIO, SUPERCAVITATING HYDROFOILS OPERATING NEAR THE FREE WATER SURFACE. Virgil E. Johnson, Jr. December 1957. 94p. diagrs., photos. (NACA RM L57I16)

A METHOD FOR CALCULATION OF HYDRODYNAMIC LIFT FOR SUBMERGED AND PLANING RECTANGULAR LIFTING SURFACES. Kenneth L. Wadlin and Kenneth W. Christopher. January 1958. 34p. diagrs. (NACA TN 4168)

AN EXPERIMENTAL INVESTIGATION OF WAKE EFFECTS ON HYDRO-SKIS. Ellis E. McBride and Lloyd J. Fisher. May 1958. 34p. diagrs., photos., tab. (NACA TN 4251)

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. September 1958. 29p. diagrs. (NACA TN 4256. Supersedes RM L54H10)

(2.3)
Seaplane Hull Variables

CONSIDERATIONS AFFECTING HYDRO-SKI AIRPLANE DESIGN. Kenneth L. Wadlin. November 1953. 14p. diagrs. (NACA RM L53I28b)

IMPACT-LOADS INVESTIGATION OF CHINE-IMMERSED MODEL HAVING A CIRCULAR-ARC TRANSVERSE SHAPE. Philip M. Edge, Jr. September 1957. 35p. diagrs., photo., tab. (NACA TN 4103)

HYDRODYNAMIC IMPACT LOADS OF A -20° DEAD-RISE INVERTED-V MODEL AND COMPARISONS WITH LOADS OF A FLAT-BOTTOM MODEL.. Philip M. Edge, Jr. August 1958. 36p. diagrs., photo., tabs. (NACA TN 4339)

HYDRODYNAMIC IMPACT LOADS ON 30° AND 60° V-STEP PLAN-FORM MODELS WITH AND WITHOUT DEAD RISE. Philip M. Edge, Jr., and Jean P. Mason. September 1958. 20p. diagrs., photos., tab. (NACA TN 4401)

(2.3.1)
LENGTH-BEAM RATIO

THE HYDRODYNAMIC PLANING LIFT OF FOUR SURFACES AS MEASURED IN A 200-FPS FREE JET. John R. McGehee, Bernard Weinflash, and Charles A. Pelz. July 1954. 24p. diagrs., photos. (NACA RM L54F01)

TANK INVESTIGATION OF A SERIES OF RELATED HYDRO-SKIS AS LOAD-ALLEVIATION DEVICES FOR LANDING A SEAPLANE IN WAVES. Arthur W. Carter, Archibald E. Morse, Jr., and David R. Woodward. December 1956. 33p. diagrs., tabs. (NACA RM L56I25a)

(2.3.2)
DEAD RISE

EFFECT OF INCREASE IN ANGLE OF DEAD RISE ON THE HYDRODYNAMIC QUALITIES OF A SEAPLANE CONFIGURATION INCORPORATING HIGH WING LOADING. Walter J. Kapryan and Irving Weinstein. October 1956. 31p. diagrs., photos., tabs. (NACA RM L56H21)

HIGH-SPEED HYDRODYNAMIC CHARACTERISTICS OF A FLAT PLATE AND 20° DEAD-RISE SURFACE IN UNSYMMETRICAL PLANING CONDITIONS. Daniel Savitsky, R. E. Prowse, and D. H. Lueders, Stevens Institute of Technology. June 1958. 93p. diagrs., photos., tabs. (NACA TN 4187)

(2.3.5)
FOREBODY SHAPE

IMPACT-LOADS INVESTIGATION OF A CHINE-IMMERSED MODEL HAVING A LONGITUDINALLY CURVED BOW AND A V-BOTTOM WITH A DEAD-RISE ANGLE OF 30°. Philip M. Edge, Jr., and John S. Mixson. September 1957. 24p. diagrs., photo., tabs. (NACA TN 4106)

(2.3.6)
CHINES

THE HYDRODYNAMIC PLANING LIFT OF FOUR SURFACES AS MEASURED IN A 200-FPS FREE JET. John R. McGehee, Bernard Weinflash, and Charles A. Pelz. July 1954. 24p. diagrs., photos. (NACA RM L54F01)

HIGH-SPEED HYDRODYNAMIC CHARACTERISTICS OF A FLAT PLATE AND 20° DEAD-RISE SURFACE IN UNSYMMETRICAL PLANING CONDITIONS. Daniel Savitsky, R. E. Prowse, and D. H. Lueders, Stevens Institute of Technology. June 1958. 93p. diagrs., photos., tabs. (NACA TN 4187)

(2.6)
Planing Surfaces

CONSIDERATIONS AFFECTING HYDRO-SKI AIRPLANE DESIGN. Kenneth L. Wadlin. November 1953. 14p. diagrs. (NACA RM L53I28b)

THE HYDRODYNAMIC PLANING LIFT OF FOUR SURFACES AS MEASURED IN A 200-FPS FREE JET. John R. McGehee, Bernard Weinflash, and Charles A. Pelz. July 1954. 24p. diagrs., photos. (NACA RM L54F01)

COMPARISON WITH THEORY OF LANDING IMPACTS OF A MODEL OF A SEAPLANE INCORPORATING A HYDRO-SKI WITH AND WITHOUT A SHOCK ABSORBER. Edward L. Hoffman. July 1956. 30p. diagrs., photo., tabs. (NACA RM L56D26)

TANK INVESTIGATION OF A SERIES OF RELATED HYDRO-SKIS AS LOAD-ALLEVIATION DEVICES FOR LANDING A SEAPLANE IN WAVES. Arthur W. Carter, Archibald E. Morse, Jr., and David R. Woodward. December 1956. 33p. diagrs., tabs. (NACA RM L56I25a)

INVESTIGATION OF THE INFLUENCE OF THE BOUNDARIES OF A HIGH-SPEED FREE WATER JET ON THE PLANING LIFT OF A FLAT PLATE. John R. McGehee. March 1957. 21p. diagrs., photos. (NACA RM L56K02)

EFFECT OF BOUNDARY SOLIDITY ON PLANING LIFT OBTAINED IN A HIGH-SPEED WATER JET WITH A SINGLE LONGITUDINAL SLOT IN EACH RIGID BOUNDARY. Bernard Weinflash. October 1957. 27p. diagrs., photos. (NACA RM L57I06)

ROUGH-WATER IMPACT-LOAD INVESTIGATION OF A CHINE-IMMERSED V-BOTTOM MODEL HAVING A DEAD-RISE ANGLE OF 10°. Melvin F. Markey and Thomas D. Carpini. October 1957. 32p. diagrs., photos., tab. (NACA TN 4123)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ARBITRARY ASPECT RATIO, SUPERCAVITATING HYDROFOILS OPERATING NEAR THE FREE WATER SURFACE. Virgil E. Johnson, Jr. December 1957. 94p. diagrs., photos. (NACA RM L57I16)

A METHOD FOR CALCULATION OF HYDRODYNAMIC LIFT FOR SUBMERGED AND PLANING RECTANGULAR LIFTING SURFACES. Kenneth L. Wadlin and Kenneth W. Christopher. January 1958. 34p. diagrs. (NACA TN 4168)

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HIGH-SPEED HYDRODYNAMIC CHARACTERISTICS OF A FLAT PLATE AND 20° DEAD-RISE SURFACE IN UNSYMMETRICAL PLANING CONDITIONS. Daniel Savitsky, R. E. Prowse, and D. H. Lueders, Stevens Institute of Technology. June 1958. 93p. diagrs., photos., tabs. (NACA TN 4187)

EFFECTS OF NOSE SHAPE AND SPRAY CONTROL STRIPS ON EMERGENCE AND PLANING SPRAY OF HYDRO-SKI MODELS. John R. McGehee. July 1958. 28p. diagrs., photos. (NACA TN 4294)

(2.7)
Hydrofoils

THEORETICAL DETERMINATION OF LOW-DRAG SUPERCAVITATING HYDROFOILS AND THEIR TWO-DIMENSIONAL CHARACTERISTICS AT ZERO CAVITATION NUMBER. Virgil E. Johnson, Jr. September 1957. 29p. diagrs. (NACA RM L57G11a)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ARBITRARY ASPECT RATIO, SUPERCAVITATING HYDROFOILS OPERATING NEAR THE FREE WATER SURFACE. Virgil E. Johnson, Jr. December 1957. 94p. diagrs., photos. (NACA RM L57I16)

A METHOD FOR CALCULATION OF HYDRODYNAMIC LIFT FOR SUBMERGED AND PLANING RECTANGULAR LIFTING SURFACES. Kenneth L. Wadlin and Kenneth W. Christopher. January 1958. 34p. diagrs. (NACA TN 4168)

(2.8)
Surface Craft

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. September 1958. 29p. diagrs. (NACA TN 4256. Supersedes RM L54H10)

(2.9)
Ditching Characteristics

DITCHING INVESTIGATIONS OF DYNAMIC MODELS AND EFFECTS OF DESIGN PARAMETERS ON DITCHING CHARACTERISTICS. Lloyd J. Fisher and Edward L. Hoffman. 1958. ii, 28p. diagrs., tabs. (NACA Rept. 1347. Supersedes TN 3946)

(2.10)
Stability and Control

HIGH-SPEED HYDRODYNAMIC CHARACTERISTICS OF A FLAT PLATE AND 20° DEAD-RISE SURFACE IN UNSYMMETRICAL PLANING CONDITIONS. Daniel Savitsky, R. E. Prowse, and D. H. Lueders, Stevens Institute of Technology. June 1958. 93p. diagrs., photos., tabs. (NACA TN 4187)

(3)
PROPULSION

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PROPULSION

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTER-BURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K26)

ENGINEERING METHOD OF RAM-JET THRUST DETERMINATION BASED ON EXPERIMENTALLY OBTAINED COMBUSTOR PARAMETERS. H. Rudolph Dettwyler and Maxime A. Faget. August 1953. 44p. diagrs., tab. (NACA RM L53E21)

AN ANALYSIS OF THE TRANSONIC AND SUPERSONIC PERFORMANCE OF SEVERAL FIXED-GEOMETRY AIR INLETS. Robert E. Pendley and Robert R. Howell. March 1955. 36p. diagrs., tab. (NACA RM L54L29)

SCREEN-TYPE NOISE REDUCTION DEVICES FOR GROUND RUNNING OF TURBOJET ENGINES. Willard D. Coles and Warren J. North. July 1957. 23p. diagrs., photos. (NACA TN 4033)

(3.1)
Complete Systems

EFFECT OF FUEL DENSITY AND HEATING VALUE ON RAM-JET AIRPLANE RANGE. Hugh M. Henneberry. February 1952. 56p. diagrs., tabs. (NACA RM E51L21)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. I - LIQUID-COOLING SYSTEMS. Wilson B. Schramm, Alfred J. Nachtigall, and Vernon L. Arne. January 1953. 52p. diagrs., tabs. (NACA RM E52J29)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. II - AIR-COOLING SYSTEMS. Wilson B. Schramm, Vernon L. Arne, and Alfred J. Nachtigall. January 1953. 50p. diagrs., tabs. (NACA RM E52J30)

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTER-BURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K26)

ENGINEERING METHOD OF RAM-JET THRUST DETERMINATION BASED ON EXPERIMENTALLY OBTAINED COMBUSTOR PARAMETERS. H. Rudolph Dettwyler and Maxime A. Faget. August 1953. 44p. diagrs., tab. (NACA RM L53E21)

INVESTIGATION OF A FLOW DEFLECTOR AND AN AUXILIARY SCOOP FOR IMPROVING OFF-DESIGN PERFORMANCE OF NOSE INLETS. Warren E. Anderson and Richard Scherrer. July 1954. 32p. diagrs., photos. (NACA RM A54E06)

FLIGHT AND PREFLIGHT TESTS OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND UTILIZING A SOLID-PROPELLANT GAS GENERATOR FOR FUEL EXPULSION. Walter A. Bartlett, Jr., and William K. Hagginbothom, Jr. April 1955. 35p. diagrs., photos. (NACA RM L55A24)

PREFLIGHT AND FLIGHT-TEST INVESTIGATION OF A 50-PERCENT-MAGNESIUM 50-PERCENT JP-4 SLURRY FUEL IN A TWIN-ENGINE RAM-JET VEHICLE. Otto F. Trout, Jr., and Thomas L. Kennedy. May 1956. 27p. diagrs., photos. (NACA RM L56C06)

TABLES AND CHARTS FOR THERMODYNAMIC CALCULATIONS INVOLVING AIR AND FUELS CONTAINING BORON, CARBON, HYDROGEN, AND OXYGEN. Eldon W. Hall and Richard J. Weber. July 1956. 82p. diagrs., tabs. (NACA RM E56B27)

AN ANALOG STUDY OF A SHOCK-POSITION DIFFUSER CONTROL ON A SUPERSONIC TURBOJET ENGINE. David Novik. August 1956. 27p. diagrs. (NACA RM E56E09a)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

(3.1.3)
TURBOJET ENGINES

ALTITUDE-WIND-TUNNEL INVESTIGATION OF TAIL-PIPE BURNER WITH CONVERGING CONICAL BURNER SECTION ON J35-A-5 TURBOJET ENGINE. H. Carl Thorman and Carl E. Campbell. February 10, 1950. 60p. diagrs., photos., tab. (NACA RM E9I16)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL- AND CENTRIFUGAL-COMPRESSOR TURBOJET ENGINES BY INJECTION OF WATER AND ALCOHOL IN COMBUSTION CHAMBERS. David S. Gabriel, Harry W. Dowman, and William L. Jones. April 13, 1950. 43p. diagrs., photo. (NACA RM E9K29)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF 29-INCH-DIAMETER TAIL-PIPE BURNER WITH SEVERAL FUEL SYSTEMS AND FUEL-COOLED STAGE-TYPE FLAME HOLDERS ON J35-A-5 TURBOJET ENGINE. Richard L. Golladay and Harry E. Bloomer. April 28, 1950. 57p. diagrs., photos., tab. (NACA RM E50A19)

TURBOJET COMBUSTOR EFFICIENCY AT HIGH ALTITUDES. Walter T. Olson, J. Howard Childs, and Edmund R. Jonash. October 27, 1950. 51p. diagrs., photo. (NACA RM E50I07)

NACA INVESTIGATIONS OF ICING-PROTECTION SYSTEMS FOR TURBOJET-ENGINE INSTALLATIONS. Uwe von Glahn, Edmund E. Callaghan, and Vernon H. Gray. May 2, 1951. (ii), 83p. diagrs., photos. (NACA RM E51B12)

LOITERING AND RANGE PERFORMANCE OF TURBOJET-POWERED AIRCRAFT DETERMINED BY OFF-DESIGN ENGINE CYCLE ANALYSIS. Stanley L. Koutz and Reece V. Hensley. February 1952. 45p. diagrs., tab. (NACA RM E51K29)

ALTITUDE PERFORMANCE INVESTIGATION OF TWO FLAME-HOLDER AND FUEL-SYSTEM CONFIGURATIONS IN SHORT AFTERBURNER. S. C. Huntley and H. D. Wilsted. May 1952. 41p. diagrs., photos., tab. (NACA RM E52B25)

ALTITUDE PERFORMANCE INVESTIGATION OF SINGLE- AND DOUBLE-ANNULAR TURBOJET-ENGINE COMBUSTORS WITH VARIOUS SIZE FUEL NOZZLES. James L. Harp, Jr., and Kenneth R. Vincent. June 1952. 60p. photos., diagrs., tab. (NACA RM E51L14)

COMPONENT AND OVER-ALL PERFORMANCE EVALUATION OF AN AXIAL-FLOW TURBOJET ENGINE OVER A RANGE OF ENGINE-INLET REYNOLDS NUMBERS. Curtis L. Walker, S. C. Huntley, and W. M. Braithwaite. July 1952. 42p. diagrs., tabs. (NACA RM E52B08)

EFFECT OF WATER VAPOR ON COMBUSTION OF MAGNESIUM-HYDROCARBON SLURRY FUELS IN SMALL-SCALE AFTERBURNER. Leonard K. Tower. October 1952. 39p. diagrs., tabs. (NACA RM E52H25)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. I - LIQUID-COOLING SYSTEMS. Wilson B. Schramm, Alfred J. Nachtigall, and Vernon L. Arne. January 1953. 52p. diagrs., tabs. (NACA RM E52J29)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. II - AIR-COOLING SYSTEMS. Wilson B. Schramm, Vernon L. Arne, and Alfred J. Nachtigall. January 1953. 50p. diagrs., tabs. (NACA RM E52J30)

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTERBURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K26)

ALTITUDE STARTING CHARACTERISTICS OF AN AFTERBURNER WITH AUTOIGNITION AND HOT-STREAK IGNITION. P. E. Renas, R. W. Harvey, Sr., and E. T. Jansen. April 1953. 25p. diagrs., photos., tab. (NACA RM E53B02)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. III - INVESTIGATION OF ROTATING STALL, BLADE VIBRATION, AND SURGE AT LOW AND INTERMEDIATE COMPRESSOR SPEEDS. Merle C. Huppert, Eleanor L. Costilow, and Ray E. Budinger. May 1953. 47p. diagrs., photos., tabs. (NACA RM E53C19)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR AN AFTERBURNER WITH A SINTERED, POROUS STAINLESS-STEEL COMBUSTION-CHAMBER WALL. William K. Koffel. June 1953. 47p. diagrs., photos., tabs. (NACA RM E53D08)

EFFECT OF DIFFUSER DESIGN, DIFFUSER-EXIT VELOCITY PROFILE, AND FUEL DISTRIBUTION ON ALTITUDE PERFORMANCE OF SEVERAL AFTERBURNER CONFIGURATIONS. E. William Conrad, Frederick W. Schulze, and Karl H. Usow. July 1953. 63p. diagrs., photos., tab. (NACA RM E53A30)

DYNAMIC CHARACTERISTICS OF A SINGLE-SPOOL TURBOJET ENGINE. R. T. Craig, George Vasu, and R. D. Schmidt. August 1953. 50p. diagrs., tab. (NACA RM E53C17)

ALUMINUM BOROHYDRIDE AS AN IGNITION SOURCE FOR TURBOJET COMBUSTORS. David M. Straight, Edward A. Fletcher, and Hampton H. Foster. September 1953. 19p. diagrs., photos., tabs. (NACA RM E53G15)

EXPERIMENTAL INVESTIGATION OF SCREECHING COMBUSTION IN FULL-SCALE AFTERBURNER. Karl H. Usow, Carl L. Meyer, and Frederick W. Schulze. December 1953. 62p. diagrs., photos., tab. (NACA RM E53I01)

GENERAL CONSIDERATIONS OF MACH NUMBER EFFECTS ON COMPRESSOR-BLADE DESIGN. John F. Klapproth. April 1954. 24p. diagrs., photos. (NACA RM E53L23a)

EXPERIMENTAL INVESTIGATION OF ROTATING STALL AND BLADE VIBRATION IN THE AXIAL-FLOW COMPRESSOR OF A TURBOJET ENGINE. Merle C. Huppert, Howard F. Calvert, and André J. Meyer. April 1954. 24p. diagrs., tabs. (NACA RM E54A08)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

INVESTIGATION OF A TRANSLATING-CONE INLET AT MACH NUMBERS FROM 1.5 TO 2.0. L. Abbott Leissler and William H. Sterbentz. May 1954. 29p. diagrs., photos., tab. (NACA RM E54B23)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. I - TURBINE PERFORMANCE AND ENGINE WEIGHT-FLOW CAPACITY. Richard J. Rossbach, Wilson B. Schramm, and James E. Hubbartt. May 1954. 50p. diagrs., tab. (NACA RM E54C22)

CHARACTERISTICS OF A HYDRAULIC CONTROL DETERMINED FROM TRANSIENT DATA OBTAINED WITH A TURBOJET ENGINE AT ALTITUDE. George Vasu, William L. Hinde, and R. T. Craig. June 1954. 62p. diagrs., photo., tab. (NACA RM E53D02)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. II - ANALYTICAL TECHNIQUES. Richard J. Rossbach. June 1954. 29p. diagrs. (NACA RM E54D21)

COOLING CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER WITH A POROUS WALL OF BRAZED AND ROLLED WIRE CLOTH. William K. Koffel. August 1954. 68p. diagrs., photos., tabs. (NACA RM E54E25)

AN EVALUATION OF TURBOJET ENGINE THRUST CONTROL BY EXHAUST-NOZZLE-AREA MODULATION AND COMPRESSOR-INLET THROTTLING. James L. Harp, Jr., Wallace W. Velie, and William E. Mallett. August 1954. 17p. diagrs., photos. (NACA RM E54F21)

LOW-PRESSURE PERFORMANCE OF EXPERIMENTAL PREVAPORIZING TUBULAR COMBUSTOR USING APPROXIMATELY STOICHIOMETRIC ADMISSION OF FUEL-AIR MIXTURE INTO THE PRIMARY ZONE. Robert R. Hibbard, Allen J. Metzler, and Wilfred E. Scull. August 1954. 38p. diagrs., tabs. (NACA RM E54F25a)

PERFORMANCE OF A PAIR OF TUBULAR COMBUSTORS WITH AN EXTERNAL PILOT CHAMBER. Robert Friedman and Eugene V. Zettle. September 1954. 26p. diagrs., tab. (NACA RM E54E11)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. III - ENGINE DESIGN-POINT PERFORMANCE. James E. Hubbartt, Richard J. Rossbach, and Wilson B. Schramm. September 1954. 41p. diagrs., tab. (NACA RM E54F16a)

PHOTOGRAPHIC INVESTIGATION OF AIR-FLOW PATTERNS IN TRANSPARENT ONE-SIXTH SECTOR OF ANNULAR TURBOJET-ENGINE COMBUSTOR WITH AXIAL-SLOT-TYPE AIR ADMISSION. Charles C. Graves and J. Dean Gernon. December 1954. 24p. diagrs., photos. (NACA RM E54I28a)

PRELIMINARY INVESTIGATION OF THE STRENGTH AND ENDURANCE OF PLASTIC-IMPREGNATED FIBERGLASS COMPRESSOR BLADES. Donald F. Johnson and André J. Meyer, Jr. January 1955. 21p. diagrs., photos. (NACA RM E54I27a)

ALUMINUM BOROHYDRIDE - HYDROCARBON MIXTURES AS A SOURCE OF IGNITION FOR A TURBOJET COMBUSTOR. Hampton H. Foster, Edward A. Fletcher, and David M. Straight. February 1955. 24p. diagrs., photo., tabs. (NACA RM E54K12)

AN ANALYSIS OF THE TRANSONIC AND SUPERSONIC PERFORMANCE OF SEVERAL FIXED-GEOMETRY AIR INLETS. Robert E. Pendley and Robert R. Howell. March 1955. 36p. diagrs., tab. (NACA RM L54L29)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. IV - COOLANT-FLOW REQUIREMENTS AND PERFORMANCE OF ENGINES USING AIR-COOLED CORRUGATED-INSERT BLADES. Henry O. Slone and James E. Hubbartt. May 1955. 45p. diagrs., photos., tab. (NACA RM E55C09)

STEADY-STATE AND SURGE CHARACTERISTICS OF A COMPRESSOR EQUIPPED WITH VARIABLE INLET GUIDE VANES OPERATING IN A TURBOJET ENGINE. Lewis E. Wallner and Robert J. Lubick. June 1955. 54p. diagrs., photos. (NACA RM E54I28)

COMPRESSOR-BLADE VIBRATION AND PERFORMANCE IN A J47-23 TURBOJET ENGINE UNDER CONDITIONS OF ROTATING STALL. Morgan P. Hanson, Donald F. Johnson, and André J. Meyer, Jr. June 1955. 18p. diagrs., tab. (NACA RM E54L20a)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. Leonard K. Tower. June 1955. 79p. diagrs. (NACA RM E55A31)

ANALYTICAL COMPARISON OF CONVECTION-COOLED TURBINE BLADE COOLING-AIR REQUIREMENTS FOR SEVERAL RADIAL GAS-TEMPERATURE PROFILES. James E. Hubbartt and Henry O. Slone. September 1955. 46p. diagrs. (NACA RM E55G14)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

EVALUATION OF AN AUTOMATIC INLET-PRESSURE CONTROL VALVE FOR STUDY OF TRANSIENT ENGINE PERFORMANCE CHARACTERISTICS. Lewis E. Wallner, Robert J. Lubick, and Harry E. Bloomer. April 1956. 25p. diagrs., photo. (NACA RM E55L13)

FABRICATION AND ENDURANCE OF AIR-COOLED STRUT-SUPPORTED TURBINE BLADES WITH STRUTS CAST OF X-40 ALLOY. Eugene F. Schum, Francis S. Stepka, and Robert E. Oldrieve. April 1956. 39p. diagrs., photos., tabs. (NACA RM E56A12)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. SUPPLEMENT I - INFLUENCE OF NEW BORIC-OXIDE VAPOR-PRESSURE DATA ON CALCULATED PERFORMANCE OF PENTABORANE. Leonard K. Tower. May 1956. 11p. diagrs. (NACA RM E56D02)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME I. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 406p. diagrs., photos., tab. (NACA RM E56B03)

EFFECT OF DESIGN OVER-ALL COMPRESSOR PRESSURE RATIO DIVISION ON ACCELERATION CHARACTERISTICS OF THREE HYPOTHETICAL TWO-SPOOL TURBOJET ENGINES. Richard E. Filippi and James F. Dugan, Jr. August 1956. 26p. diagrs. (NACA RM E56D13)

METHODS FOR CALCULATING THRUST AUGMENTATION AND LIQUID CONSUMPTION FOR VARIOUS TURBOJET-AFTERBURNER FUELS. James F. Morris. October 1956. 73p. diagrs. (NACA RM E56A23)

PERFORMANCE OF INCONEL 739 BUCKETS IN J33-9 TURBOJET ENGINE. C. A. Gyorgak and J. R. Johnston. October 1956. 19p. diagrs., photos., tabs. (NACA RM E56E24)

ANALYSIS OF TURBOJET-ENGINE CONTROLS FOR AFTERBURNER STARTING. W. E. Phillips, Jr. October 1956. 61p. diagrs., tabs. (NACA RM E56F29)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. Walton L. Howes, Edmund E. Callaghan, Willard D. Coles, and Harold R. Mull. Appendix B: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. 1957. ii, 35p. diagrs., photos., tab. (NACA Rept. 1338. Supersedes TN 3763 and TN 3764)

INVESTIGATION OF 70 PERCENT TRIMETHYL BORATE - 30 PERCENT METHYL ALCOHOL FUEL MIXTURE IN A SINGLE J33 COMBUSTOR AND IN A J33 TURBOJET ENGINE. Louis J. Schafer, Jr., and Robert O. Hickel. January 1957. 26p. diagrs., photos., tab. (NACA RM E53C24)

A STUDY OF LIQUID BORIC OXIDE PARTICLE GROWTH RATES IN A GAS STREAM FROM A SIMULATED JET ENGINE COMBUSTOR. Paul C. Setze. April 1957. 41p. diagrs., photos., tab. (NACA RM E55I20a)

EXPERIMENTAL INVESTIGATION OF MODIFIED CAST-CORED BLADES HAVING HOLLOW TIP SECTIONS. Robert E. Oldrieve and John C. Freche. June 1957. 36p. diagrs., photos., (NACA RM E57C15)

SCREEN-TYPE NOISE REDUCTION DEVICES FOR GROUND RUNNING OF TURBOJET ENGINES. Willard D. Coles and Warren J. North. July 1957. 23p. diagrs., photos. (NACA TN 4033)

DETERMINATION OF SURGE AND STALL LIMITS OF AN AXIAL-FLOW TURBOJET ENGINE FOR CONTROL APPLICATIONS. Ross D. Schmidt, George Vasu, and Edward W. McGraw. September 1957. 29p. diagrs., tab. (NACA TN 3585. Supersedes RM E53B10)

CALCULATED AND MEASURED STRESSES IN SIMPLE PANELS SUBJECT TO INTENSE RANDOM ACOUSTIC LOADING INCLUDING THE NEAR NOISE FIELD OF A TURBOJET ENGINE. Leslie W. Lassiter and Robert W. Hess. September 1957. 33p. diagrs. (NACA TN 4076)

EFFECT OF INITIAL MIXTURE-TEMPERATURE ON BURNING VELOCITY OF HYDROGEN-AIR MIXTURES WITH PREHEATING AND SIMULATED PREBURNING. Sheldon Heimel. October 1957. 23p. diagrs., tabs. (NACA TN 4156)

EXPERIMENTAL INVESTIGATION OF TURBOJET-ENGINE MULTIPLE-LOOP CONTROLS FOR NON-AFTERBURNING AND AFTERBURNING MODES OF ENGINE OPERATION. Donald B. Kirsch, Leon M. Wenzel, and Clint E. Hart. January 1958. 61p. diagrs., tab. (NACA TN 4159)

THEORETICAL INVESTIGATION OF SUBSONIC OSCILLATORY BLADE-ROW AERODYNAMICS. Frank Lane and Manfred Friedman, New York University. February 1958. 64p. diagrs., tabs. (NACA TN 4136)

APPLICATION OF A HIGH-TEMPERATURE STATIC STRAIN GAGE TO THE MEASUREMENT OF THERMAL STRESSES IN A TURBINE STATOR VANE. R. H. Kemp, C. R. Morse, and M. H. Hirschberg. March 1958. 36p. diagrs., photos., tab. (NACA TN 4215)

EFFECT OF PRIOR AIR FORCE OVERTEMPERATURE OPERATION ON LIFE OF J47 BUCKETS EVALUATED IN A SEA-LEVEL CYCLIC ENGINE TEST. Robert A. Signorelli, James R. Johnston, and Floyd B. Garrett. April 1958. 41p. diagrs., photos., tabs. (NACA TN 4263)

VIBRATION SURVEY OF FOUR REPRESENTATIVE TYPES OF AIR-COOLED TURBINE BLADES. Howard F. Calvert and Gordon T. Smith. July 1958. 22p. diagrs., photos., tabs. (NACA TN 4100)

THEORETICAL AND EXPERIMENTAL ANALYSIS OF THE REDUCTION OF ROTOR BLADE VIBRATION IN TURBOMACHINERY THROUGH THE USE OF MODIFIED STATOR VANE SPACING. Richard H. Kemp, Marvin H. Hirschberg, and William C. Morgan September 1958. 43p. diagrs., photos., tabs. (NACA TN 4373)

(3.1.4)
TURBO-PROPELLER ENGINES

TURBINE DESIGN CONSIDERATIONS FOR TURBINE-PROPELLER ENGINE OPERATING OVER A RANGE OF FLIGHT CONDITIONS. Elmer H. Davison. June 1953. 20p. diagrs., tab. (NACA RM E53D16)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF AN XT38-A-2 TURBOPROP ENGINE. R. H. Essig and F. W. Schulze. March 1954. 43p. diagrs., photos., tab. (NACA RM E53L18a)

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. I - EFFECT OF MODE OF ENGINE OPERATION ON PERFORMANCE OF TURBOPROP ENGINE WITH CURRENT COMPRESSOR PRESSURE RATIO. Elmer H. Davison. May 1955. 34p. diagrs. (NACA RM E54D19)

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. II - DESIGN REQUIREMENTS AND PERFORMANCE OF TURBOPROP ENGINES WITH A SINGLE-SPOOL HIGH-PRESSURE-RATIO COMPRESSOR. Elmer H. Davison and Margaret C. Stalla. May 1955. 32p. diagrs., tabs. (NACA RM E55B18)

ANALYTICAL AND EXPERIMENTAL STUDY OF TRANSIENT-RESPONSE CHARACTERISTICS OF A TURBOPROP ENGINE. R. T. Craig, S. Nakanishi, and D. B. Wile. October 1955. 50p. diagrs., photo., tabs. (NACA RM E55C23)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME I. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 406p. diagrs., photos., tab. (NACA RM E56B03)

NOISE SURVEY OF A FULL-SCALE SUPERSONIC TURBINE-DRIVEN PROPELLER UNDER STATIC CONDITIONS. Max C. Kurbjun. July 1957 20p. diagrs., photo., tab. (NACA TN 4059)

NOISE SURVEY UNDER STATIC CONDITIONS OF A TURBINE-DRIVEN FULL-SCALE MODIFIED SUPERSONIC PROPELLER WITH AN ADVANCE RATIO OF 3.2. Max C. Kurbjun. January 1958. 17p. diagrs., photo., tabs. (NACA TN 4172)

THEORETICAL AND EXPERIMENTAL ANALYSIS OF THE REDUCTION OF ROTOR BLADE VIBRATION IN TURBOMACHINERY THROUGH THE USE OF MODIFIED STATOR VANE SPACING. Richard H. Kemp, Marvin H. Hirschberg, and William C. Morgan. September 1958. 43p. diagrs., photos., tabs. (NACA TN 4373)

(3.1.7)
RAM-JET ENGINES

INVESTIGATION OF EFFECTS OF SEVERAL FUEL-INJECTION LOCATIONS ON OPERATIONAL PERFORMANCE OF A 20-INCH RAM JET. W. H. Sterbentz, E. Perchonok, and F. A. Wilcox. June 8, 1948. 39p. diagrs., photos.. (NACA RM E7L02)

INVESTIGATION OF COMBUSTION IN 16-INCH RAM JET UNDER SIMULATED CONDITIONS OF HIGH ALTITUDE AND HIGH MACH NUMBER. T. J. Nussdorfer, D. C. Sederstrom, and E. Perchonok. June 27, 1950. 53p. diagrs., photos., tabs. (NACA RM E50D04)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. I - COMBUSTION AND OPERATIONAL PERFORMANCE OF FOUR COMBUSTION-CHAMBER CONFIGURATIONS. W. L. Jones, T. B. Shillito, and J. G. Henzel, Jr. August 23, 1950. 53p. diagrs., photos. (NACA RM E50F16)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. II - EFFECTS OF GUTTER WIDTH AND BLOCKED AREA ON OPERATING RANGE AND COMBUSTION EFFICIENCY. T. B. Shillito, W. L. Jones, and R. W. Kahn. November 6, 1950. 58p. diagrs. (NACA RM E50H21)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. III - COMBUSTION AND OPERATIONAL PERFORMANCE OF THREE FLAME HOLDERS WITH A CENTER PILOT BURNER. Thomas B. Shillito, George G. Younger, and James G. Henzel, Jr. February 6, 1951. 30p. diagrs. (NACA RM E50J20)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. II - ISENTROPIC-SPIKE ALL-EXTERNAL COMPRESSION INLET. L. J. Obery and G. W. Englert. February 9, 1951. 67p. diagrs., photos., tabs. (NACA RM E50J26a)

FORCE AND PRESSURE CHARACTERISTICS FOR A SERIES OF NOSE INLETS AT MACH NUMBERS FROM 1.59 TO 1.99. III - CONICAL-SPIKE ALL-EXTERNAL-COMPRESSION INLET WITH SUPERSONIC COWL LIP. Maynard I. Weinstein and Joseph Davids. February 14, 1951. 51p. diagrs., tabs. (NACA RM E50J30)

FLIGHT PERFORMANCE OF A TWIN-ENGINE SUPERSONIC RAM JET FROM 2,300 TO 67,200 FEET ALTITUDE. H. Rudolph Dettwyler and Aleck C. Bond. February 19, 1951. 23p. diagrs., photos., tab. (NACA RM L50L27)

INTERNAL FLOW AND BURNING CHARACTERISTICS OF 16-INCH RAM JET OPERATING IN A FREE JET AT MACH NUMBERS OF 1.35 AND 1.73. Eugene Perchonok and John M. Farley. May 21, 1951. 37p. diagrs., photos., tab. (NACA RM E51C16)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. IV - EFFECT OF INLET-AIR TEMPERATURE, COMBUSTION-CHAMBER-INLET MACH NUMBER, AND FUEL VOLATILITY ON COMBUSTION PERFORMANCE. Robert W. Kahn, Shigeo Nakanishi, and James L. Harp, Jr. July 1951. 27p. diagrs. (NACA RM E51D11)

EFFECT OF FUEL DENSITY AND HEATING VALUE ON RAM-JET AIRPLANE RANGE. Hugh M. Henneberry. February 1952. 56p. diagrs., tabs. (NACA RM E51L21)

TRANSONIC FREE-FLIGHT DRAG RESULTS OF FULL-SCALE MODELS OF 16-INCH-DIAMETER RAM-JET ENGINES. Wesley E. Messing and Loren W. Acker. April 1952. 17p. diagrs (NACA RM E52B19)

EVALUATION OF FIVE CONICAL CENTER-BODY SUPERSONIC DIFFUSERS AT SEVERAL ANGLES OF ATTACK. Gerald W. Englert and Leonard J. Obery. May 1952. 29p. diagrs., photos., tab. (NACA RM E51L04)

TRANSONIC FREE-FLIGHT INVESTIGATION OF THE TOTAL DRAG AND OF THE COMPONENT DRAGS (COWL PRESSURE, ADDITIVE, BASE, FRICTION, AND INTERNAL) ENCOUNTERED BY A 16-INCH-DIAMETER RAM-JET ENGINE FOR MACH NUMBERS FROM 0.80 TO 1.43. Wesley E. Messing and Leonard Rabb. August 1952. 34p. diagrs., photos. (NACA RM E52F02)

SPREADING OF EXHAUST JET FROM 16-INCH RAM JET AT MACH NUMBER 2.0. Fred Wilcox and Donald Pennington. August 1952. 14p. diagrs., photo., tab. (NACA RM E52F25)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH VERTICALLY MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Leonard J. Obery and Howard S. Krasnow. September 1952. 25p. diagrs.. (NACA RM E52H08)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

EFFECT OF FUEL-AIR RATIO CONCENTRATION IN COMBUSTION ZONE ON COMBUSTION PERFORMANCE OF A 16-INCH RAM-JET ENGINE. A. J. Cervenka, D. W. Bahr, and E. E. Dangle. April 1953. 24p. diagrs., tab. (NACA RM E53B19)

FREE-JET ALTITUDE INVESTIGATION OF A 20-INCH RAM-JET COMBUSTOR WITH A RICH INNER ZONE OF COMBUSTION FOR IMPROVED LOW-TEMPERATURE-RATIO OPERATION. Arthur M. Trout and Carl B. Wentworth. May 1953. 28p. diagrs., photo. (NACA RM E52L26)

EFFECT OF FUEL INJECTOR LOCATION AND MIXTURE CONTROL ON PERFORMANCE OF A 16-INCH RAM-JET CAN-TYPE COMBUSTOR. A. J. Cervenka, Eugene Perchonok, and E. E. Dangle. July 1953. 33p. diagrs., tab. (NACA RM E53F15)

ENGINEERING METHOD OF RAM-JET THRUST DETERMINATION BASED ON EXPERIMENTALLY OBTAINED COMBUSTOR PARAMETERS. H. Rudolph Dettwyler and Maxime A. Faget. August 1953. 44p. diagrs., tab. (NACA RM L53E21)

EFFECT OF INLET-AIR TEMPERATURE ON PERFORMANCE OF A 16-INCH RAM-JET COMBUSTOR. A. J. Cervenka, E. E. Dangle, and Robert Friedman. October 1953. 24p. diagrs., tab. (NACA RM E53I03)

INVESTIGATION OF CONICAL SUBSONIC DIFFUSERS FOR RAM-JET ENGINES. John M. Farley and Henry J. Welna. March 1954. 40p. diagrs., photos., tabs. (NACA RM E53L15)

INVESTIGATION OF A TRANSLATING-CONE INLET AT MACH NUMBERS FROM 1.5 TO 2.0. L. Abbott Leissler and William H. Sterbentz. May 1954. 29p. diagrs., photos., tab. (NACA RM E54B23)

EFFECT OF MECHANICALLY INDUCED SINUSOIDAL AIR-FLOW OSCILLATIONS ON OPERATION OF A RAM-JET ENGINE. E. E. Dangle, A. J. Cervenka, and Eugene Perchonok. June 1954. 24p. diagrs., tab. (NACA RM E54D01)

PERFORMANCE OF A 16-INCH RAM-JET ENGINE WITH A CAN-TYPE COMBUSTOR AT MACH NUMBERS OF 1.50 TO 2.16. Donald P. Hearth and Eugene Perchonok. August 1954. 30p. diagrs. (NACA RM E54G13)

DRAG DATA FOR 16-INCH-DIAMETER RAM-JET ENGINE WITH DOUBLE-CONE INLET IN FREE FLIGHT AT MACH NUMBERS FROM 0.7 TO 1.8. Merle L. Jones, Leonard Rabb, and Scott H. Simpkinson. October 1954. 52p. diagrs., photos. (NACA RM E54H02)

FLIGHT AND PREFLIGHT TESTS OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND UTILIZING A SOLID-PROPELLANT GAS GENERATOR FOR FUEL EXPULSION. Walter A. Bartlett, Jr., and William K. Hagginbothom, Jr. April 1955. 35p. diagrs., photos. (NACA RM L55A24)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. Leonard K. Tower. June 1955. 79p. diagrs. (NACA RM E55A31)

AN ANALYSIS OF RAM-JET-ENGINE TIME DELAY FOLLOWING A FUEL-FLOW DISTURBANCE. Fred A. Wilcox and Arthur R. Anderson. June 1955. 38p. diagrs., tabs. (NACA RM E55D22)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. SUPPLEMENT I - INFLUENCE OF NEW BORIC-OXIDE VAPOR-PRESSURE DATA ON CALCULATED PERFORMANCE OF PENTABORANE. Leonard K. Tower. May 1956. 11p. diagrs. (NACA RM E56D02)

PREFLIGHT AND FLIGHT-TEST INVESTIGATION OF A 50-PERCENT-MAGNESIUM 50-PERCENT JP-4 SLURRY FUEL IN A TWIN-ENGINE RAM-JET VEHICLE. Otto F. Trout, Jr., and Thomas L. Kennedy. May 1956. 27p. diagrs., photos. (NACA RM L56C06)

FLIGHT INVESTIGATION OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND HAVING A CONICAL SHOCK INLET DESIGNED FOR A MACH NUMBER OF 4.1. Walter A. Bartlett, Jr., and Charles F. Merlet. January 1957. 23p. diagrs., photos. (NACA RM L56I24a)

A STUDY OF LIQUID BORIC OXIDE PARTICLE GROWTH RATES IN A GAS STREAM FROM A SIMULATED JET ENGINE COMBUSTOR. Paul C. Setze. April 1957. 41p. diagrs., photos., tab. (NACA RM E55I20a)

DROP-SIZE DISTRIBUTION FOR CROSSCURRENT BREAKUP OF LIQUID JETS IN AIRSTREAMS. Robert D. Ingebo and Hampton H. Foster. October 1957. 36p. diagrs., photos. tabs. (NACA TN 4087)

STUDY OF SOME BURNER CROSS-SECTION CHANGES THAT INCREASE SPACE-HEATING RATES. Donald R. Boldman and Perry L. Blackshear, Jr. November 1957. 38p. diagrs., photos., tab. (NACA TN 4162)

EXTREME SPEEDS AND THERMODYNAMIC STATES IN SUPERSONIC FLIGHT. (Extreme Geschwindigkeiten und thermische Zustände beim Überschallflug.) Klaus Oswatitsch. April 1958. 39p. diagrs., tabs. (NACA TM 1434. Translation from Zeitschrift für Flugwissenschaften, v.4, no.3/4, 1956, p.95-108)

PRELIMINARY SURVEY OF PROPULSION USING CHEMICAL ENERGY STORED IN THE UPPER ATMOSPHERE. Lionel V. Baldwin and Perry L. Blackshear. Appendix D: HEAT TRANSFER AND FRICTION DRAG. James F. Schmidt. May 1958. 73p. diagrs., tabs. (NACA TN 4267)

AN ANALYSIS OF RAMJET ENGINES USING SUPERSONIC COMBUSTION. Richard J. Weber and John S. MacKay. September 1958. 49p. diagrs., tab. (NACA TN 4386)

(3.1.8)
ROCKET ENGINES

PRELIMINARY INVESTIGATION OF A CHEMICAL STARTING TECHNIQUE FOR THE ACID GASOLINE ROCKET PROPELLANT SYSTEM. Glen Hennings and Gerald Morrell. January 1953. 23p. photo., diagrs., tab. (NACA RM E52K21)

INVESTIGATION OF LIQUID FLUORINE - LIQUID AMMONIA PROPELLANT COMBINATION IN A 100-POUND-THRUST ROCKET ENGINE. Edward A. Rothenberg and Howard W. Douglass. July 1953. 31p. diagrs., photos., tabs. (NACA RM E53E08)

ROCKET-POWERED MODEL INVESTIGATION OF LIFT, DRAG, AND STABILITY OF A BODY-TAIL CONFIGURATION AT MACH NUMBERS FROM 0.8 TO 2.3 AND ANGLES OF ATTACK BETWEEN ±6.5°. Warren Gillespie, Jr., and Albert E. Dietz. April 1954. 42p. diagrs., photos., tabs. (NACA RM L54C04)

PHOTOGRAPHIC STUDY OF ROTARY SCREAMING AND OTHER OSCILLATIONS IN A ROCKET ENGINE. Theodore Male, William R. Kerslake, and Adelbert O. Tischler. May 1954. 37p. diagrs., photos. (NACA RM E54A29)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-PERCENT-FLUORINE - 30-PERCENT-OXYGEN MIXTURE AS A ROCKET PROPELLANT. I - FROZEN COMPOSITION. Sanford Gordon and Vearl N. Huff. April 1956. 38p. diagrs., tabs. (NACA RM E56A13a)

EFFECT OF FUELS ON SCREAMING IN 200-POUND-THRUST LIQUID-OXYGEN - FUEL ROCKET ENGINE. Isaac Pass and Adelbert O. Tischler. June 1956. 25p. diagrs., photos., tab. (NACA RM E56C10)

INJECTION PRINCIPLES FOR LIQUID OXYGEN AND HEPTANE USING TWO-ELEMENT INJECTORS. Marcus F. Heidmann. June 1956. 30p. diagrs., photos., tab. (NACA RM E56D04)

A BRIEF SUMMARY OF EXPERIENCE IN BOOSTING AERODYNAMIC RESEARCH MODELS. Joseph G. Thibodaux, Jr. (Report is basis of talk presented at the thirtieth meeting of Bumblebee Aerodynamics Panel, Buffalo, New York, January 4, 1956.) July 1956. 21p. diagrs., photos. (NACA RM L56E28)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-30 MIXTURE OF FLUORINE AND OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Sanford Gordon and Vearl N. Huff. October 1956. 49p. diagrs., tabs. (NACA RM E56F04)

EFFECTS OF VARIATIONS IN COMBUSTION-CHAMBER CONFIGURATION ON IGNITION DELAY IN A 50-POUND-THRUST ROCKET. Dezso J. Ladanyi. October 1956. 53p. diagrs., photos., tabs. (NACA RM E56F22)

A STUDY OF INJECTION PROCESSES FOR LIQUID OXYGEN AND GASEOUS HYDROGEN IN A 200-POUND-THRUST ROCKET ENGINE. Carmon M. Auble. January 1957. 32p. diagrs., photos. (NACA RM E56I25a)

REACTION OF FLUORINE WITH CARBON AS A MEANS OF FLUORINE DISPOSAL. Harold W. Schmidt. July 1957. 17p. diagrs., tab. (NACA RM E57E02)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; EXPERIMENTAL EFFECT OF FUEL TEMPERATURE ON LIQUID-OXYGEN - HEPTANE PERFORMANCE. M. F. Heidmann. July 1957. 21p. diagrs., tabs. (NACA RM E57E03)

INJECTION PRINCIPLES FOR LIQUID OXYGEN AND HEPTANE USING NINE-ELEMENT INJECTORS IN AN 1800-POUND-THRUST ROCKET ENGINE. Richard F. Neu. July 1957. 27p. diagrs., photos., tab. (NACA RM E57E13)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET ENGINE DESIGN; CALCULATIONS OF CHAMBER LENGTH TO VAPORIZE A SINGLE n-HEPTANE DROP. Richard J. Priem. July 1957. 41p. diagrs., tab. (NACA TN 3985)

ANALYSIS OF TWO-STAGE-TURBINE EFFICIENCY CHARACTERISTICS IN TERMS OF WORK AND SPEED REQUIREMENTS. Warner L. Stewart and William T. Wintucky. August 1957. 45p. diagrs., tabs. (NACA RM E57F12)

EFFECT OF FLUID-SYSTEM PARAMETERS ON STARTING FLOW IN A LIQUID ROCKET. Richard P. Krebs. September 1957. 38p. diagrs., tab. (NACA TN 4034)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; CALCULATIONS USING VARIOUS LOG-PROBABILITY DISTRIBUTIONS OF HEPTANE DROPS. Richard J. Priem. October 1957. 29p. diagrs., tab. (NACA TN 4098)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Kenneth S. Drellishak. November 1957. 62p. diagrs., tabs. (NACA RM E57G16a)

EFFECT OF FUEL-ORIFICE DIAMETER ON PERFORMANCE OF HEPTANE-OXYGEN ROCKET ENGINES. Richard J. Priem and Martin Hersch. February 1958. 20p. diagrs. (NACA RM E57I26)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING EQUILIBRIUM COMPOSITION. Sanford Gordon. February 1958. 69p. diagrs., tabs. (NACA RM E57K22)

FRICTION STUDIES OF VARIOUS MATERIALS IN LIQUID NITROGEN. D. W. Wisander, W. F. Hady, and R. L. Johnson. February 1958. 35p. diagrs., photos., tab. (NACA TN 4211)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET ENGINE DESIGN; RELATION BETWEEN PERCENTAGE OF PROPELLANT VAPORIZED AND ENGINE PERFORMANCE. Marcus F. Heidmann and Richard J. Priem. March 1958. 19p. diagrs. (NACA TN 4219)

DROP-SIZE DISTRIBUTIONS FOR IMPINGING-JET BREAKUP IN AIRSTREAMS SIMULATING THE VELOCITY CONDITIONS IN ROCKET COMBUSTORS. Robert D. Ingebo. March 1958. 23p. diagrs. photos., tab. (NACA TN 4222)

EXTREME SPEEDS AND THERMODYNAMIC STATES IN SUPERSONIC FLIGHT. (Extreme Geschwindigkeiten und thermische Zustände beim Uberschallflug.) Klaus Oswatitsch. April 1958. 39p. diagrs., tabs. (NACA TM 1434. Translation from Zeitschrift fur Flugwissenschaften, v.4, no.3/4, 1956, p.95-108)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA WITH LIQUID OXYGEN AS A ROCKET PROPELLANT. Sanford Gordon and Alan R. Glueck. May 1958. 84p. diagrs., tabs. (NACA RM E58A21)

THEORETICAL ROCKET PERFORMANCE OF LIQUID METHANE WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Michael E. Kastner. May 1958. 44p. diagrs., tabs. (NACA RM E58B20)

EFFECT OF FUEL DROP SIZE AND INJECTOR CONFIGURATION ON SCREAMING IN A 200-POUND-THRUST ROCKET ENGINE USING LIQUID OXYGEN AND HEPTANE. Charles E. Feiler. June 1958. 27p. diagrs., photos., tab. (NACA RM E58A20a)

SCREAMING TENDENCY OF THE GASEOUS-HYDROGEN - LIQUID-OXYGEN PROPELLANT COMBINATION. Louis Baker, Jr., and Fred W. Steffen. September 1958. 24p. diagrs., photos., tabs. (NACA RM E58E09)

COMBUSTOR PERFORMANCE WITH VARIOUS HYDROGEN-OXYGEN INJECTION METHODS IN A 200-POUND-THRUST ROCKET ENGINE. M. F. Heidmann and Louis Baker, Jr. September 1958. 45p. diagrs., photos., tab. (NACA RM E58E21)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; CALCULATIONS OF CHAMBER LENGTH TO VAPORIZE VARIOUS PROPELLANTS. Richard J. Priem. September 1958. 36p. diagrs., tab. (NACA TN 3883)

A MACH 4 ROCKET-POWERED SUPERSONIC TUNNEL USING AMMONIA-OXYGEN AS WORKING FLUID. Robert W. Graham, Eleanor Costilow Guentert, and Vearl N. Huff. September 1958. 53p. diagrs., photos. (NACA TN 4325)

RELATIVE MOTION IN THE TERMINAL PHASE OF INTERCEPTION OF A SATELLITE OR A BALLISTIC MISSILE. Richard A. Hord. September 1958. 33p. diagrs., tab. (NACA TN 4393)

(3.1.9)
JET-DRIVEN ROTORS

ANALYSIS OF A PRESSURE-JET POWER PLANT FOR A HELICOPTER. Richard P. Krebs and William S. Miller, Jr. March 1955. 56p. diagrs. (NACA RM E54L23)

EFFECT OF AMBIENT CONDITIONS ON THE PERFORMANCE OF A PRESSURE-JET POWERPLANT FOR A HELICOPTER. Richard P. Krebs. June 1956. 49p. diagrs. (NACA RM E56B21)

EXPLORATORY INVESTIGATION OF A HELICOPTER PRESSURE-JET SYSTEM ON THE LANGLEY HELICOPTER TEST TOWER. Robert A. Makofski and James P. Shivers. July 1956. 38p. diagrs., photo. (NACA RM L56B17)

ON PAIRS OF SOLUTIONS OF A CLASS OF INTERNAL VISCOUS FLOW PROBLEMS WITH BODY FORCES. Simon Ostrach and Lynn U. Albers. June 1958. 21p. diagrs., tabs. (NACA TN 4273)

(3.1.10)
NUCLEAR-ENERGY SYSTEMS

DISTRIBUTION OF FISSIONABLE MATERIAL IN THERMAL REACTORS OF SPHERICAL GEOMETRY FOR UNIFORM POWER GENERATION. Robert R. McCready, Robert B. Spooner, and Michael F. Valerino. June 1952. 36p. diagrs., tab. (NACA RM E52C11)

CALCULATION OF INTERNAL PRESSURES IN THE FUEL TUBE OF A NUCLEAR REACTOR. B. M. Rosenbaum and G. Allen. July 1952. 32p. tabs. (NACA RM E52B28)

EFFECT OF CAPTURE ON THE SLOWING-DOWN LENGTH OF NEUTRONS IN HYDROGENOUS MIXTURES CONTAINING URANIUM. H. C. Volkin and L. Soffer. April 1953. 4p. tab. (NACA RM E53B05)

COMPARISON OF CALCULATED AND MEASURED THERMAL DISTORTIONS IN A REACTOR CONTROL ROD FOR TEMPERATURE PATTERNS SIMULATING TWO REACTOR OPERATING CONDITIONS. Tibor F. Nagey. April 1953. 18p. diagrs., tabs. (NACA RM E53B26)

FORCED-CONVECTION HEAT-TRANSFER CHARACTERISTICS OF MOLTEN FLINAK FLOWING IN AN INCONEL X SYSTEM. Milton D. Grele and Louis Gedeon. February 1954. 23p. diagrs., photos., tab. (NACA RM E53L18)

TRANSPORT OF RADIOACTIVITY BY LIQUID SODIUM IN A STAINLESS STEEL CIRCULATION SYSTEM. D. Fieno and D. Bogart. March 2, 1955. 17p. diagrs., photos., tab. (NACA RM E54K03)

TWO-DIMENSIONAL DIFFUSION THEORY ANALYSIS OF REACTIVITY EFFECTS OF A FUEL-PLATE-REMOVAL EXPERIMENT. Edward R. Gotsky, James P. Cusick, and Donald Bogart. January 1958. 30p. diagrs., photos., tab. (NACA TN 4164)

(3.1.11)
MISCELLANEOUS ENGINES

EXPLORATORY INVESTIGATION OF A HELICOPTER PRESSURE-JET SYSTEM ON THE LANGLEY HELICOPTER TEST TOWER. Robert A. Makofski and James P. Shivers. July 1956. 38p. diagrs., photo. (NACA RM L56B17)

EXPLORATORY INVESTIGATION OF AERODYNAMIC EFFECTS OF EXTERNAL COMBUSTION OF ALUMINUM BOROHYDRIDE IN AIRSTREAM ADJACENT TO FLAT PLATE IN MACH 2.46 TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. July 1957. 91p. diagrs., photos., tabs. (NACA RM E57E16)

PRELIMINARY SURVEY OF PROPULSION USING CHEMICAL ENERGY STORED IN THE UPPER ATMOSPHERE. Lionel V. Baldwin and Perry L. Blackshear. Appendix D: HEAT TRANSFER AND FRICTION DRAG. James F. Schmidt. May 1958. 73p. diagrs., tabs. (NACA TN 4267)

(3.2)
Control of Engines

CHARACTERISTICS OF A HYDRAULIC CONTROL DETERMINED FROM TRANSIENT DATA OBTAINED WITH A TURBOJET ENGINE AT ALTITUDE. George Vasu, William L. Hinde, and R. T. Craig. June 1954. 62p. diagrs., photo., tab. (NACA RM E53D02)

SUMMARY OF SCALE-MODEL THRUST-REVERSER INVESTIGATION. John H. Povolny, Fred W. Steffen, and Jack G. McArdle. 1957. ii, 14p. diagrs., photos. (NACA Rept. 1314. Supersedes TN 3664)

(3.2.2)
CONTROL OF TURBOJET ENGINES

ALTITUDE STARTING CHARACTERISTICS OF AN AFTERBURNER WITH AUTOIGNITION AND HOT-STREAK IGNITION. P. E. Renas, R. W. Harvey, Sr., and E. T. Jansen. April 1953. 25p. diagrs., photos., tab. (NACA RM E53B02)

DYNAMIC CHARACTERISTICS OF A SINGLE-SPOOL TURBOJET ENGINE. R. T. Craig, George Vasu, and R. D. Schmidt. August 1953. 50p. diagrs., tab. (NACA RM E53C17)

CHARACTERISTICS OF A HYDRAULIC CONTROL DETERMINED FROM TRANSIENT DATA OBTAINED WITH A TURBOJET ENGINE AT ALTITUDE. George Vasu, William L. Hinde, and R. T. Craig. June 1954. 62p. diagrs., photo., tab. (NACA RM E53D02)

AN EVALUATION OF TURBOJET ENGINE THRUST CONTROL BY EXHAUST-NOZZLE-AREA MODULATION AND COMPRESSOR-INLET THROTTLING. James L. Harp, Jr., Wallace W. Velie, and William E. Mallett. August 1954. 17p. diagrs., photos. (NACA RM E54F21)

EXPERIMENTAL INVESTIGATION OF CONTROL SIGNALS AND THE NATURE OF STALL AND SURGE BEHAVIOR IN A TURBOJET ENGINE. G. J. Delio and P. M. Stiglic. December 1954. 62p. diagrs. (NACA RM E54I15)

INVESTIGATION TO MACH NUMBER 2.0 OF SHOCK-POSITIONING CONTROL SYSTEMS FOR A VARIABLE-GEOMETRY INLET IN COMBINATION WITH A J34 TURBOJET ENGINE. L. Abbott Leissler and J. Cary Nettles. December 1954. 19p. diagrs. (NACA RM E54I27)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

AN ANALOG STUDY OF A SHOCK-POSITION DIFFUSER CONTROL ON A SUPERSONIC TURBOJET ENGINE. David Novik. August 1956. 27p. diagrs. (NACA RM E56E09a)

ANALYSIS OF TURBOJET-ENGINE CONTROLS FOR AFTERBURNER STARTING. W. E. Phillips, Jr. October 1956. 61p. diagrs., tabs. (NACA RM E56F29)

DETERMINATION OF SURGE AND STALL LIMITS OF AN AXIAL-FLOW TURBOJET ENGINE FOR CONTROL APPLICATIONS. Ross D. Schmidt, George Vasu, and Edward W. McGraw. September 1957. 29p. diagrs., tab. (NACA TN 3585. Supersedes RM E53L

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

EXPERIMENTAL INVESTIGATION OF TURBOJET-ENGINE MULTIPLE-LOOP CONTROLS FOR NON-AFTERBURNING AND AFTERBURNING MODES OF ENGINE OPERATION. Donald B. Kirsch, Leon M. Wenzel, and Clint E. Hart. January 1958. 61p. diagrs., tab. (NACA TN 4159)

(3.2.4)
CONTROL OF TURBINE-PROPELLER ENGINES

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF AN XT38-A-2 TURBOPROP ENGINE. R. H. Essig and F. W. Schulze. March 1954. 43p. diagrs., photos., tab. (NACA RM E53L18a)

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. I - EFFECT OF MODE OF ENGINE OPERATION ON PERFORMANCE OF TURBOPROP ENGINE WITH CURRENT COMPRESSOR PRESSURE RATIO. Elmer H. Davison. May 1955. 34p. diagrs. (NACA RM E54D19)

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. II - DESIGN REQUIREMENTS AND PERFORMANCE OF TURBOPROP ENGINES WITH A SINGLE-SPOOL HIGH-PRESSURE-RATIO COMPRESSOR. Elmer H. Davison and Margaret C. Stalla. May 1955. 32p. diagrs., tabs. (NACA RM E55B18)

ANALYTICAL AND EXPERIMENTAL STUDY OF TRANSIENT-RESPONSE CHARACTERISTICS OF A TURBOPROP ENGINE. R. T. Craig, S. Nakanishi, and D. B. Wile. October 1955. 50p. diagrs., photo., tabs. (NACA RM E55C23)

(3.2.6)
CONTROL OF RAM-JET ENGINES

A PROPOSED RAM-JET CONTROL SYSTEM OPERATED BY USE OF DIFFUSER PRESSURE RECOVERY. Maxime A. Faget. September 1952. 19p. diagrs. (NACA RM L52E05b)

EFFECT OF MECHANICALLY INDUCED SINUSOIDAL AIR-FLOW OSCILLATIONS ON OPERATION OF A RAM-JET ENGINE. E. E. Dangle, A. J. Cervenka, and Eugene Perchonok. June 1954. 24p. diagrs., tab. (NACA RM E54D01)

AN ANALYSIS OF RAM-JET-ENGINE TIME DELAY FOLLOWING A FUEL-FLOW DISTURBANCE. Fred A. Wilcox and Arthur R. Anderson. June 1955. 38p. diagrs., tabs. (NACA RM E55D22)

ANALYSIS OF SHOCK MOTION IN DUCTS DURING DISTURBANCES IN DOWNSTREAM PRESSURE. Herbert G. Hurrell. September 1957. 11p. diagr. (NACA TN 4090)

(3.2.7) CONTROL OF ROCKET ENGINES

EFFECT OF FLUID-SYSTEM PARAMETERS ON STARTING FLOW IN A LIQUID ROCKET. Richard P. Krebs. September 1957. 38p. diagrs., tab. (NACA TN 4034)

(3.3)
Auxiliary Booster Systems

(3.3.2)
GAS TURBINES

(3.3.2.1)
LIQUID INJECTION

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL- AND CENTRIFUGAL-COMPRESSOR TURBOJET ENGINES BY INJECTION OF WATER AND ALCOHOL IN COMBUSTION CHAMBERS. David S. Gabriel, Harry W. Dowman, and William L. Jones. April 13, 1950. 43p. diagrs., photo. (NACA RM E9K29)

(3.3.2.2)
AFTERBURNING

ALTITUDE-WIND-TUNNEL INVESTIGATION OF TAIL-PIPE BURNER WITH CONVERGING CONICAL BURNER SECTION ON J35-A-5 TURBOJET ENGINE. H. Carl Thorman and Carl E. Campbell. February 10, 1950. 60p. diagrs., photos., tab. (NACA RM E9I16)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF 29-INCH-DIAMETER TAIL-PIPE BURNER WITH SEVERAL FUEL SYSTEMS AND FUEL-COOLED STAGE-TYPE FLAME HOLDERS ON J35-A-5 TURBOJET ENGINE. Richard L. Golladay and Harry E. Bloomer. April 28, 1950. 57p. diagrs., photos., tab. (NACA RM E50A19)

EXPERIMENTAL INVESTIGATION OF TAIL-PIPE-BURNER DESIGN VARIABLES. W. A. Fleming, E. William Conrad, and A. W. Young. March 5, 1951. 75p. diagrs., photos., tab. (NACA RM E50K22)

ALTITUDE PERFORMANCE INVESTIGATION OF TWO FLAME-HOLDER AND FUEL-SYSTEM CONFIGURATIONS IN SHORT AFTERBURNER. S. C. Huntley and H. D. Wilsted. May 1952. 41p. diagrs., photos., tab. (NACA RM E52B25)

INVESTIGATION OF PERFORMANCE OF SEVERAL DOUBLE-SHROUD EJECTORS AND EFFECT OF VARIABLE-AREA EXHAUST NOZZLE ON SINGLE EJECTOR PERFORMANCE. C. W. Ellis, D. P. Hollister, and H. D. Wilsted. July 1952. 25p. diagrs., photos. (NACA RM E52D25)

EFFECT OF WATER VAPOR ON COMBUSTION OF MAGNESIUM-HYDROCARBON SLURRY FUELS IN SMALL-SCALE AFTERBURNER. Leonard K. Tower. October 1952. 39p. diagrs., tabs. (NACA RM E52H25)

PERFORMANCE OF DOUBLE-SHROUD EJECTOR CONFIGURATION WITH PRIMARY PRESSURE RATIOS FROM 1.0 TO 10. Donald P. Hollister and William K. Greathouse. February 1953. 34p. diagrs., tabs. (NACA RM E52K17)

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTERBURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K2?

ALTITUDE STARTING CHARACTERISTICS OF AN AFTERBURNER WITH AUTOIGNITION AND HOT-STREAK IGNITION. P. E. Renas, R. W. Harvey, Sr., and E. T. Jansen. April 1953. 25p. diagrs., photos., tab. (NACA RM E53B02)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR AN AFTERBURNER WITH A SINTERED, POROUS STAINLESS-STEEL COMBUSTION-CHAMBER WALL. William K. Koffel. June 1953. 47p. diagrs., photos., tabs. (NACA RM E53D08)

EFFECT OF DIFFUSER DESIGN, DIFFUSER-EXIT VELOCITY PROFILE, AND FUEL DISTRIBUTION ON ALTITUDE PERFORMANCE OF SEVERAL AFTERBURNER CONFIGURATIONS. E. William Conrad, Frederick W. Schulze, and Karl H. Usow. July 1953. 63p. diagrs., photos., tab. (NACA RM E53A30)

EXPERIMENTAL INVESTIGATION OF SCREECHING COMBUSTION IN FULL-SCALE AFTERBURNER. Karl H. Usow, Carl L. Meyer, and Frederick W. Schulze. December 1953. 62p. diagrs., photos., tab. (NACA RM E53I01)

A SUMMARY OF PRELIMINARY INVESTIGATIONS INTO THE CHARACTERISTICS OF COMBUSTION SCREECH IN DUCTED BURNERS. Lewis Laboratory Staff. April 1954. 60p. diagrs., photos. (NACA RM E54B02)

PERFORMANCE CHARACTERISTICS OF SEVERAL SHORT ANNULAR DIFFUSERS FOR TURBOJET ENGINE AFTERBURNERS. William E. Mallett and James L. Harp, Jr. May 1954. 31p. diagrs., photo. (NACA RM E54B09)

COOLING CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER WITH A POROUS WALL OF BRAZED AND ROLLED WIRE CLOTH. William K. Koffel. August 1954. 68p. diagrs., photos., tabs. (NACA RM E54E25)

SOME SCREECHING-COMBUSTION CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER HAVING A POROUS WALL OF WIRE CLOTH. William K. Koffel, James L. Harp, Jr., and Lively Bryant. November 1954. 12p. diagrs. (NACA RM E54H27)

METHODS FOR CALCULATING THRUST AUGMENTATION AND LIQUID CONSUMPTION FOR VARIOUS TURBOJET-AFTERBURNER FUELS. James F. Morris. October 1956. 73p. diagrs. (NACA RM E56A23)

ANALYSIS OF TURBOJET-ENGINE CONTROLS FOR AFTERBURNER STARTING. W. E. Phillips, Jr. October 1956. 61p. diagrs., tabs. (NACA RM E56F29)

STUDY OF SOME BURNER CROSS-SECTION CHANGES THAT INCREASE SPACE-HEATING RATES. Donald R. Boldman and Perry L. Blackshear, Jr. November 1957. 38p. diagrs., photos., tab. (NACA TN 4162)

EXPERIMENTAL INVESTIGATION OF TURBOJET-ENGINE MULTIPLE-LOOP CONTROLS FOR NON-AFTERBURNING AND AFTERBURNING MODES OF ENGINE OPERATION. Donald B. Kirsch, Leon M. Wenzel, and Clint E. Hart. January 1958. 61p. diagrs., tab. (NACA TN 4159)

EFFECT OF PRESSURE AND DUCT GEOMETRY ON BLUFF-BODY FLAME STABILIZATION. Andrew E. Potter, Jr., and Edgar L. Wong. September 1958. 31p. diagrs., tab. (NACA TN 4381)

(3.3.3) ROCKET ASSIST

INFLUENCE OF FUSELAGE-MOUNTED ROCKET-BOOSTERS ON FLOW FIELD AT INLET AND ON DIFFUSER PERFORMANCE OF STRUT-MOUNTED ENGINE AT MACH NUMBERS OF 1.8 AND 2.0. George A. Wise and Leonard J. Obery. October 1952. 16p. diagrs., photos. (NACA RM E52I02)

EFFECT OF FLUID-SYSTEM PARAMETERS ON STARTING FLOW IN A LIQUID ROCKET. Richard P. Krebs. September 1957. 38p. diagrs., tab. (NACA TN 4034)

(3.4) Fuels

EFFECT OF FUEL DENSITY AND HEATING VALUE ON RAM-JET AIRPLANE RANGE. Hugh M. Henneberry. February 1952. 56p. diagrs., tabs. (NACA RM E51L21)

COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Edward A. Fletcher, Robert G. Dorsch, and Melvin Gerstein. June 1955. 72p. diagrs., photos., tabs. (NACA RM E55D07a)

CALCULATED HEATS OF FORMATION AND COMBUSTION OF BORON COMPOUNDS (BORON, HYDROGEN, CARBON, SILICON). Aubrey P. Altshuller. October 1955. 28p. diagrs., tabs. (NACA RM E55G26)

THERMAL DECOMPOSITION OF ETHYLPENTABORANE IN GAS PHASE. Glen E. McDonald. July 1956. 20p. diagrs., tab. (NACA RM E56D26)

ESTIMATION OF SPECIFIC SURFACE OF FINELY DIVIDED MAGNESIUM. Murray L. Pinns. August 1956. 28p. diagrs., tabs. (NACA RM E56D10a)

METHODS FOR CALCULATING THRUST AUGMENTATION AND LIQUID CONSUMPTION FOR VARIOUS TURBOJET-AFTERBURNER FUELS. James F. Morris. October 1956. 73p. diagrs. (NACA RM E56A23)

SURVEY OF HYDROGEN COMBUSTION PROPERTIES. Isadore L. Drell and Frank E. Belles. July 1957. (ii), 86p. diagrs., tabs. (NACA RM E57D24)

(3.4.1) PREPARATION

PREPARATION AND PHYSICAL PROPERTIES OF SOME TRIALKYLBORANES. Louis Rosenblum and Harrison Allen, Jr. November 1955. 19p. diagrs., photos., tab. (NACA RM E55E06)

DESIGN CONSIDERATIONS OF A CONDENSING SYSTEM FOR VAPORIZED MAGNESIUM. Walter R. Witzke, George M. Prok, and Thomas A. Keller. November 1955. 19p. diagrs., photos., tabs. (NACA RM E55I20)

THERMAL DECOMPOSITION OF ETHYLPENTABORANE IN GAS PHASE. Glen E. McDonald. July 1956. 20p. diagrs., tab. (NACA RM E56D26)

ESTIMATION OF SPECIFIC SURFACE OF FINELY DIVIDED MAGNESIUM. Murray L. Pinns. August 1956. 28p. diagrs., tabs. (NACA RM E56D10a)

DROP-SIZE DISTRIBUTION FOR CROSSCURRENT BREAKUP OF LIQUID JETS IN AIRSTREAMS. Robert D. Ingebo and Hampton H. Foster. October 1957. 36p. diagrs., photos. tabs. (NACA TN 4087)

DROP-SIZE DISTRIBUTIONS FOR IMPINGING-JET BREAKUP IN AIRSTREAMS SIMULATING THE VELOCITY CONDITIONS IN ROCKET COMBUSTORS. Robert D. Ingebo. March 1958. 23p. diagrs., photos., tab. (NACA TN 4222)

GRAPHS OF REDUCED VARIABLES FOR COMPUTING HISTORIES OF VAPORIZING FUEL DROPS, AND DROP HISTORIES UNDER PRESSURE. G. L. Borman, M. M. El Wakil, O. A. Uyehara, and P. S. Myers, University of Wisconsin. September 1958. (i), 55p. diagrs., tab. (NACA TN 4338)

(3.4.2) PHYSICAL AND CHEMICAL PROPERTIES

ALUMINUM BOROHYDRIDE AS AN IGNITION SOURCE FOR TURBOJET COMBUSTORS. David M. Straight, Edward A. Fletcher, and Hampton H. Foster. September 1953. 19p. diagrs., photos., tabs. (NACA RM E53G15)

ALUMINUM BOROHYDRIDE - HYDROCARBON MIXTURES AS A SOURCE OF IGNITION FOR A TURBOJET COMBUSTOR. Hampton H. Foster, Edward A. Fletcher, and David M. Straight. February 1955. 24p. diagrs., photo., tabs. (NACA RM E54K12)

A METHOD FOR THE ANALYSIS OF COMPOUNDS CONTAINING BORON, CARBON, AND HYDROGEN. Harrison Allen, Jr., and Stanley Tannenbaum. March 1955. 9p. diagrs., tabs. (NACA RM E54L15)

CALCULATED HEATS OF FORMATION AND COMBUSTION OF BORON COMPOUNDS (BORON, HYDROGEN, CARBON, SILICON). Aubrey P. Altshuller. October 1955. 28p. diagrs., tabs. (NACA RM E55G26)

THE RATE OF DECOMPOSITION OF LIQUID PENTABORANE FROM 85° TO 202° C. Glen E. McDonald. October 1955. 22p. diagrs., tab. (NACA RM E55H01)

PREPARATION AND PHYSICAL PROPERTIES OF SOME TRIALKYLBORANES. Louis Rosenblum and Harrison Allen, Jr. November 1955. 19p. diagrs., photos., tab. (NACA RM E55E06)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-PERCENT-FLUORINE - 30-PERCENT-OXYGEN MIXTURE AS A ROCKET PROPELLANT. I - FROZEN COMPOSITION. Sanford Gordon and Vearl N. Huff. April 1956. 38p. diagrs., tabs. (NACA RM E56A13a)

A STUDY OF FUEL-NITRIC ACID REACTIVITY. Charles E. Feiler and Louis Baker, Jr. April 1956. 48p. diagrs., photo., tabs. (NACA RM E56A19)

TABLES AND CHARTS FOR THERMODYNAMIC CALCULATIONS INVOLVING AIR AND FUELS CONTAINING BORON, CARBON, HYDROGEN, AND OXYGEN. Eldon W. Hall and Richard J. Weber. July 1956. 82p. diagrs., tabs. (NACA RM E56B27)

THERMAL DECOMPOSITION OF ETHYLPENTABORANE IN GAS PHASE. Glen E. McDonald. July 1956. 20p. diagrs., tab. (NACA RM E56D26)

ESTIMATION OF SPECIFIC SURFACE OF FINELY DIVIDED MAGNESIUM. Murray L. Pinns. August 1956. 28p. diagrs., tabs. (NACA RM E56D10a)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-30 MIXTURE OF FLUORINE AND OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Sanford Gordon and Vearl N. Huff. October 1956. 49p. diagrs., tabs. (NACA RM E56F04)

SPONTANEOUS IGNITION OF PENTABORANE SPRAYS IN A HOT-AIR STREAM. Erwin A. Lezberg and Albert M. Lord. November 1956. 26p. diagrs. (NACA RM E55F29a)

COKING OF JP-4 FUELS IN ELECTRICALLY HEATED METAL TUBES. Arthur L. Smith, William P. Cook, and Vincent F. Hlavin. November 1956. 17p. diagrs., tabs. (NACA RM E56H21)

FUNDAMENTAL FLAME VELOCITY, HEAT OF COMBUSTION, AND SPONTANEOUS IGNITION TEMPERATURE OF DIMETHYLAMINODIBORANE. Robert R. Hibbard and Gordon L. Dugger. December 1956. 6p. diagr., tab. (NACA RM E52L23)

THERMAL STABILITY OF PENTABORANE IN THE RANGE 329° TO 419° F. Glen E. McDonald. December 1956. 4p. diagrs. (NACA RM E54G16)

THE HEAT OF COMBUSTION OF TETRAETHYLDIBORANE. Stanley Tannenbaum. January 1957. 5p. tabs. (NACA RM E53E11)

SPONTANEOUS FLAMMABILITY OF PENTABORANE AND PENTABORANE - 3-METHYLPENTANE BLENDS. Edward A. Fletcher. February 1957. 11p. diagrs., photos. (NACA RM E53I17)

EXPERIMENTAL AND CALCULATED HISTORIES OF VAPORIZING FUEL DROPS. R. J. Priem, G. L. Borman, M. M. El Wakil, O. A. Uyehara, and P. S. Myers, University of Wisconsin. August 1957. 66p. diagrs. (NACA TN 3988)

EFFECT OF INITIAL MIXTURE-TEMPERATURE ON BURNING VELOCITY OF HYDROGEN-AIR MIXTURES WITH PREHEATING AND SIMULATED PREBURNING. Sheldon Heimel. October 1957. 23p. diagrs., tabs. (NACA TN 4156)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Kenneth S. Drellishak. November 1957. 62p. diagrs., tabs. (NACA RM E57G16a)

EFFECT OF FUEL VARIABLES ON CARBON FORMATION IN TURBOJET-ENGINE COMBUSTORS. Edmund R. Jonash, Jerrold D. Wear, and William P. Cook. 1958. ii, 18p. diagrs., photos., tabs. (NACA Rept. 1352. Supersedes RM E52G11, RM E52H21, RM E53D15, RM E54H23, RM E55D28, RM E55F30a, RM E55J31)

LOW-TEMPERATURE, VAPOR-PHASE OXIDATION OF FUEL-RICH HYDROCARBON MIXTURES. William T. House and Milton Orchin, University of Cincinnati. January 1958. 30p. diagrs., tabs. (NACA TN 4118)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING EQUILIBRIUM COMPOSITION. Sanford Gordon. February 1958. 69p. diagrs., tabs. (NACA RM E57K22)

STABILITY OF PROPANE-AIR FLAMES IN VORTEX FLOW. A. E. Potter, Jr., E. L. Wong, and A. L. Berlad. February 1958. 27p. diagrs., tab. (NACA TN 4210)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA WITH LIQUID OXYGEN AS A ROCKET PROPELLANT. Sanford Gordon and Alan R. Glueck. May 1958. 84p. diagrs., tabs. (NACA RM E58A21)

THEORETICAL ROCKET PERFORMANCE OF LIQUID METHANE WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Michael E. Kastner. May 1958. 44p. diagrs., tabs. (NACA RM E58B20)

GRAPHS OF REDUCED VARIABLES FOR COMPUTING HISTORIES OF VAPORIZING FUEL DROPS, AND DROP HISTORIES UNDER PRESSURE. G. L. Borman, M. M. El Wakil, O. A. Uyehara, and P. S. Myers, University of Wisconsin. September 1958. (i), 55p. diagrs., tab. (NACA TN 4338)

(3.4.3)
RELATION TO ENGINE PERFORMANCE

INVESTIGATION OF COMBUSTION IN 16-INCH RAM JET UNDER SIMULATED CONDITIONS OF HIGH ALTITUDE AND HIGH MACH NUMBER. T. J. Nussdorfer, D. C. Sederstrom, and E. Perchonok. June 27, 1950. 53p. diagrs., photos., tabs. (NACA RM E50D04)

COMBUSTION EFFICIENCY PERFORMANCE OF A MIL-F-5624 TYPE FUEL AND MONOMETHYL-NAPHTHALENE IN A SINGLE VAPORIZING-TYPE COMBUSTOR. Anthony W. Jones and William P. Cook. February 1952. 26p. diagrs., photos., tabs. (NACA RM E51K30)

EFFECT OF DIFFUSER DESIGN, DIFFUSER-EXIT VELOCITY PROFILE, AND FUEL DISTRIBUTION ON ALTITUDE PERFORMANCE OF SEVERAL AFTERBURNER CONFIGURATIONS. E. William Conrad, Frederick W. Schulze, and Karl H. Usow. July 1953. 63p. diagrs., photos., tab. (NACA RM E53A30)

INVESTIGATION OF LIQUID FLUORINE - LIQUID AMMONIA PROPELLANT COMBINATION IN A 100-POUND-THRUST ROCKET ENGINE. Edward A. Rothenberg and Howard W. Douglass. July 1953. 31p. diagrs., photos., tabs. (NACA RM E53E08)

ENGINEERING METHOD OF RAM-JET THRUST DETERMINATION BASED ON EXPERIMENTALLY OBTAINED COMBUSTOR PARAMETERS. H. Rudolph Dettwyler and Maxime A. Faget. August 1953. 44p. diagrs., tab. (NACA RM L53E21)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. Leonard K. Tower. June 1955. 79p. diagrs. (NACA RM E55A31)

CALCULATED HEATS OF FORMATION AND COMBUSTION OF BORON COMPOUNDS (BORON, HYDROGEN, CARBON, SILICON). Aubrey P. Altshuller. October 1955. 28p. diagrs., tabs. (NACA RM E55G26)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. SUPPLEMENT I - INFLUENCE OF NEW BORIC-OXIDE VAPOR-PRESSURE DATA ON CALCULATED PERFORMANCE OF PENTABORANE. Leonard K. Tower. May 1956. 11p. diagrs. (NACA RM E56D02)

TABLES AND CHARTS FOR THERMODYNAMIC CALCULATIONS INVOLVING AIR AND FUELS CONTAINING BORON, CARBON, HYDROGEN, AND OXYGEN. Eldon W. Hall and Richard J. Weber. July 1956. 82p. diagrs., tabs. (NACA RM E56B27)

METHODS FOR CALCULATING THRUST AUGMENTATION AND LIQUID CONSUMPTION FOR VARIOUS TURBOJET-AFTERBURNER FUELS. James F. Morris. October 1956. 73p. diagrs. (NACA RM E56A23)

COKING OF JP-4 FUELS IN ELECTRICALLY HEATED METAL TUBES. Arthur L. Smith, William P. Cook, and Vincent F. Hlavin. November 1956. 17p. diagrs., tabs. (NACA RM E56H21)

INVESTIGATION OF 70 PERCENT TRIMETHYL BORATE - 30 PERCENT METHYL ALCOHOL FUEL MIXTURE IN A SINGLE J33 COMBUSTOR AND IN A J33 TURBOJET ENGINE. Louis J. Schafer, Jr., and Robert O. Hickel. January 1957. 26p. diagrs., photos., tab. (NACA RM E53C24)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET ENGINE DESIGN; CALCULATIONS OF CHAMBER LENGTH TO VAPORIZE A SINGLE n-HEPTANE DROP. Richard J. Priem. July 1957. 41p. diagrs., tab. (NACA TN 3985)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; CALCULATIONS USING VARIOUS LOG-PROBABILITY DISTRIBUTIONS OF HEPTANE DROPS. Richard J. Priem. October 1957. 29p. diagrs., tab. (NACA TN 4098)

EFFECT OF FUEL VARIABLES ON CARBON FORMATION IN TURBOJET-ENGINE COMBUSTORS. Edmund R. Jonash, Jerrold D. Wear, and William P. Cook. 1958. ii, 18p. diagrs., photos., tabs. (NACA Rept. 1352. Supersedes RM E52G11, RM E52H21, RM E53D15, RM E54H23, RM E55D28, RM E55F30a, RM E55J31)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET ENGINE DESIGN; RELATION BETWEEN PERCENTAGE OF PROPELLANT VAPORIZED AND ENGINE PERFORMANCE. Marcus F. Heidmann and Richard J. Priem. March 1958. 19p. diagrs. (NACA TN 4219)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; CALCULATIONS OF CHAMBER LENGTH TO VAPORIZE VARIOUS PROPELLANTS. Richard J. Priem. September 1958. 36p. diagrs., tab. (NACA TN 3883)

(3.4.3.2)
TURBINE ENGINES, RAM JETS, AND PULSE JETS

EFFECT OF FUEL VOLATILITY ON ALTITUDE STARTING LIMITS OF A TURBOJET ENGINE. H. D. Wilsted and J. C. Armstrong. September 11, 1950. 27p. diagrs., tabs. (NACA RM E50G10)

TURBOJET COMBUSTOR EFFICIENCY AT HIGH ALTITUDES. Walter T. Olson, J. Howard Childs, and Edmund R. Jonash. October 27, 1950. 51p. diagrs., photo. (NACA RM E50I07)

VAPOR-FUEL-DISTRIBUTION EFFECTS ON COMBUSTION PERFORMANCE OF A SINGLE TUBULAR COMBUSTOR. Richard J. McCafferty. December 13, 1950. 27p. diagrs., photo. (NACA RM E50J03)

LIQUID-FUEL-DISTRIBUTION AND FUEL-STATE EFFECTS ON COMBUSTION PERFORMANCE OF A SINGLE TUBULAR COMBUSTOR. Richard J. McCafferty. May 1, 1951. 38p. diagrs., tab. (NACA RM E51B21)

COMBUSTION EFFICIENCY PERFORMANCE OF A MIL-F-5624 TYPE FUEL AND MONOMETHYL-NAPHTHALENE IN A SINGLE VAPORIZING-TYPE COMBUSTOR. Anthony W. Jones and William P. Cook. February 1952. 26p. diagrs., photos., tabs. (NACA RM E51K30)

EFFECT OF FUEL DENSITY AND HEATING VALUE ON RAM-JET AIRPLANE RANGE. Hugh M. Henneberry. February 1952. 56p. diagrs., tabs. (NACA RM E51L21)

EFFECT OF WATER VAPOR ON COMBUSTION OF MAGNESIUM-HYDROCARBON SLURRY FUELS IN SMALL-SCALE AFTERBURNER. Leonard K. Tower. October 1952. 39p. diagrs., tabs (NACA RM E52H25)

PRELIMINARY INVESTIGATION OF AN ANNULAR TURBOJET COMBUSTOR HAVING A CATALYTIC-COATED LINER. Carl T. Norgren and J. Howard Childs. January 1954. 11p. diagrs. (NACA RM E53L07)

FLIGHT AND PREFLIGHT TESTS OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND UTILIZING A SOLID-PROPELLANT GAS GENERATOR FOR FUEL EXPULSION. Walter A. Bartlett, Jr., and William K. Hagginbothom, Jr. April 1955. 35p. diagrs., photos. (NACA RM L55A24)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. Leonard K. Tower. June 1955. 79p. diagrs. (NACA RM E55A31)

EFFECTS OF INLET-AIR-FLOW DISTORTION ON STEADY-STATE ALTITUDE PERFORMANCE OF AN AXIAL-FLOW TURBOJET ENGINE. William Conrad, Morgan P. Hanson, and John E. McAulay. September 1955. 47p. diagrs., photo. (NACA RM E55A04)

CALCULATED HEATS OF FORMATION AND COMBUSTION OF BORON COMPOUNDS (BORON, HYDROGEN, CARBON, SILICON). Aubrey P. Altshuller. October 1955. 28p. diagrs., tabs. (NACA RM E55G26)

DESIGN CONSIDERATIONS OF A CONDENSING SYSTEM FOR VAPORIZED MAGNESIUM. Walter R. Witzke, George M. Prok, and Thomas A. Keller. November 1955. 19p. diagrs., photos., tabs. (NACA RM E55I20)

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PREFLIGHT AND FLIGHT-TEST INVESTIGATION OF A 50-PERCENT-MAGNESIUM 50-PERCENT JP-4 SLURRY FUEL IN A TWIN-ENGINE RAM-JET VEHICLE. Otto F. Trout, Jr., and Thomas L. Kennedy. May 1956. 27p. diagrs., photos. (NACA RM L56C06)

TABLES AND CHARTS FOR THERMODYNAMIC CALCULATIONS INVOLVING AIR AND FUELS CONTAINING BORON, CARBON, HYDROGEN, AND OXYGEN. Eldon W. Hall and Richard J. Weber. July 1956. 82p. diagrs., tabs. (NACA RM E56B27)

SPONTANEOUS IGNITION OF PENTABORANE SPRAYS IN A HOT-AIR STREAM. Erwin A. Lezberg and Albert M. Lord. November 1956. 26p. diagrs. (NACA RM E55F29a)

COKING OF JP-4 FUELS IN ELECTRICALLY HEATED METAL TUBES. Arthur L. Smith, William P. Cook, and Vincent F. Hlavin. November 1956. 17p. diagrs., tabs. (NACA RM E56H21)

THERMAL STABILITY OF PENTABORANE IN THE RANGE 329° TO 419° F. Glen E. McDonald December 1956. 4p. diagrs. (NACA RM E54G16)

BASIC CONSIDERATIONS IN THE COMBUSTION OF HYDROCARBON FUELS WITH AIR. Propulsion Chemistry Division. Edited by Henry C. Barnett and Robert R. Hibbard. Chap. I: ATOMIZATION AND EVAPORATION OF LIQUID FUELS. Charles C. Graves and Donald W. Bahr. Chap. II: FLOW AND MIXING PROCESSES IN COMBUSTION CHAMBERS. Wilfred E. Scull and William R. Mickelsen. Chap. III: IGNITION AND FLAMMABILITY OF HYDROCARBON FUELS. Frank E. Belles and Clyde C. Swett. Chap. IV: LAMINAR FLAME PROPAGATION. Gordon L. Dugger, Dorothy M. Simon, and Melvin Gerstein. Chap. V: TURBULENT FLAMES. Melvin Gerstein and Gordon L. Dugger. Chap. VI: FLAME STABILIZATION. Gordon L. Dugger and Melvin Gerstein. Chap. VII: DIFFUSION FLAMES. Richard S. Brokaw and Melvin Gerstein. Chap. VIII: OSCILLATIONS IN COMBUSTORS. Perry L. Blackshear, Jr., and Warren D. Rayle. Chap. IX: SMOKE AND COKE FORMATION IN THE COMBUSTION OF HYDROCARBON-AIR MIXTURES. Rose L. Schalla and Robert R. Hibbard. 1957. xi, 259p. diagrs., photos., tabs. (NACA Rept. 1300)

INVESTIGATION OF 70 PERCENT TRIMETHYL BORATE - 30 PERCENT METHYL ALCOHOL FUEL MIXTURE IN A SINGLE J33 COMBUSTOR AND IN A J33 TURBOJET ENGINE. Louis J. Schafer, Jr., and Robert O. Hickel. January 1957. 26p. diagrs., photos., tab. (NACA RM E53C24)

PERFORMANCE OF AN EXPERIMENTAL ANNULAR TURBOJET COMBUSTOR WITH METHANE AND PROPANE. Carl T. Norgren. January 1957. 27p. diagrs., tabs. (NACA RM E56J22)

FLIGHT INVESTIGATION OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND HAVING A CONICAL SHOCK INLET DESIGNED FOR A MACH NUMBER OF 4.1. Walter A. Bartlett, Jr., and Charles F. Merlet. January 1957. 23p. diagrs., photos. (NACA RM L56I24a)

A STUDY OF LIQUID BORIC OXIDE PARTICLE GROWTH RATES IN A GAS STREAM FROM A SIMULATED JET ENGINE COMBUSTOR. Paul C. Setze. April 1957. 41p. diagrs., photos., tab. (NACA RM E55I20a)

DROP BURNING RATES OF HYDROCARBON AND NONHYDROCARBON FUELS. Arthur L. Smith and Charles C. Graves. August 1957. 22p. diagrs., photos., tabs. (NACA RM E57F11)

DROP-SIZE DISTRIBUTION FOR CROSSCURRENT BREAKUP OF LIQUID JETS IN AIRSTREAMS. Robert D. Ingebo and Hampton H. Foster. October 1957. 36p. diagrs., photos. tabs. (NACA TN 4087)

EFFECT OF INITIAL MIXTURE-TEMPERATURE ON BURNING VELOCITY OF HYDROGEN-AIR MIXTURES WITH PREHEATING AND SIMULATED PREBURNING. Sheldon Heimel. October 1957. 23p. diagrs., tabs. (NACA TN 4156)

(3.4.3.3) ROCKETS (INCLUDES FUEL AND OXIDANT)

PRELIMINARY INVESTIGATION OF A CHEMICAL STARTING TECHNIQUE FOR THE ACID GASOLINE ROCKET PROPELLANT SYSTEM. Glen Hennings and Gerald Morrell. January 1953. 23p. photo., diagrs., tab. (NACA RM E52K21)

INVESTIGATION OF LIQUID FLUORINE - LIQUID AMMONIA PROPELLANT COMBINATION IN A 100-POUND-THRUST ROCKET ENGINE. Edward A. Rothenberg and Howard W. Douglass. July 1953. 31p. diagrs., photos., tabs. (NACA RM E53E08)

CALCULATED HEATS OF FORMATION AND COMBUSTION OF BORON COMPOUNDS (BORON, HYDROGEN, CARBON, SILICON). Aubrey P. Altshuller. October 1955. 28p. diagrs., tabs. (NACA RM E55G26)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-PERCENT-FLUORINE - 30-PERCENT-OXYGEN MIXTURE AS A ROCKET PROPELLANT. I - FROZEN COMPOSITION. Sanford Gordon and Vearl N. Huff. April 1956. 38p. diagrs., tabs. (NACA RM E56A13a)

A STUDY OF FUEL-NITRIC ACID REACTIVITY. Charles E. Feller and Louis Baker, Jr. April 1956. 48p. diagrs., photo., tabs. (NACA RM E56A19)

EFFECT OF FUELS ON SCREAMING IN 200-POUND-THRUST LIQUID-OXYGEN - FUEL ROCKET ENGINE. Isaac Pass and Adelbert O. Tischler. June 1956. 25p. diagrs., photos., tab. (NACA RM E56C10)

INJECTION PRINCIPLES FOR LIQUID OXYGEN AND HEPTANE USING TWO-ELEMENT INJECTORS. Marcus F. Heidmann. June 1956. 30p. diagrs., photos., tab. (NACA RM E56D04)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-30 MIXTURE OF FLUORINE AND OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Sanford Gordon and Vearl N. Huff. October 1956. 49p. diagrs., tabs. (NACA RM E56F04)

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THERMAL STABILITY OF PENTABORANE IN THE RANGE 329° TO 419° F. Glen E. McDonald. December 1956. 4p. diagrs. (NACA RM E54G16)

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DILUTION OF LIQUID OXYGEN WHEN NITROGEN IS USED FOR PRESSURIZATION. Thomas J. Walsh, R. R. Hibbard, and Paul M. Ordin. April 1958. 17p. diagrs. (NACA RM E58A03a)

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RATE OF REACTION OF GASEOUS FLUORINE WITH WATER VAPOR AT 35° C. Vernon A. Slabey and Edward A. Fletcher. September 1958. 16p. diagrs., tabs. (NACA TN 4374)

(3.5)
Combustion and Combusters

EXPERIMENTAL INVESTIGATION OF TAIL-PIPE-BURNER DESIGN VARIABLES. W. A. Fleming, E. William Conrad, and A. W. Young. March 5, 1951. 75p. diagrs., photos., tab. (NACA RM E50K22)

ALTITUDE PERFORMANCE INVESTIGATION OF SINGLE- AND DOUBLE-ANNULAR TURBOJET-ENGINE COMBUSTORS WITH VARIOUS SIZE FUEL NOZZLES. James L. Harp, Jr., and Kenneth R. Vincent. June 1952. 60p. photos., diagrs., tab. (NACA RM E51L14)

TURBOJET COMBUSTOR EFFICIENCY WITH CERAMIC-COATED LINERS AND WITH MECHANICAL CONTROL OF FUEL WASH ON WALLS. Helmut F. Butze and Edmund R. Jonash. November 1952. 43p. photos., diagrs., tabs. (NACA RM E52I25)

EFFECT OF FUEL INJECTOR LOCATION AND MIXTURE CONTROL ON PERFORMANCE OF A 16-INCH RAM-JET CAN-TYPE COMBUSTOR. A. J. Cervenka, Eugene Perchonok, and E. E. Dangle. July 1953. 33p. diagrs., tab. (NACA RM E53F15)

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EXPERIMENTAL DETERMINATION OF GAS MOTION ACCOMPANYING SCREECHING COMBUSTION IN A 6-INCH SIMULATED AFTERBURNER. Perry L. Blackshear, Warren D. Rayle, and Leonard K. Tower. December 1953. 63p. diagrs., photos., tab. (NACA RM E53I28)

EFFECT OF MECHANICALLY INDUCED SINUSOIDAL AIR-FLOW OSCILLATIONS ON OPERATION OF A RAM-JET ENGINE. E. E. Dangle, A. J. Cervenka, and Eugene Perchonok. June 1954. 24p. diagrs., tab. (NACA RM E54D01)

PERFORMANCE OF A 16-INCH RAM-JET ENGINE WITH A CAN-TYPE COMBUSTOR AT MACH NUMBERS OF 1.50 TO 2.16. Donald P. Hearth and Eugene Perchonok. August 1954. 30p. diagrs. (NACA RM E54G13)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. Leonard K. Tower. June 1955. 79p. diagrs. (NACA RM E55A31)

EXPERIMENTAL EVALUATION OF BORON-HYDROCARBON SLURRY IN A 16-INCH RAM-JET COMBUSTOR. William R. Kerslake, E. E. Dangle, and A. J. Cervenka. June 1955. 37p. diagrs., photos., tabs. (NACA RM E55C07)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. SUPPLEMENT I - INFLUENCE OF NEW BORIC-OXIDE VAPOR-PRESSURE DATA ON CALCULATED PERFORMANCE OF PENTABORANE. Leonard K. Tower. May 1956. 11p. diagrs. (NACA RM E56D02)

METHODS FOR CALCULATING THRUST AUGMENTATION AND LIQUID CONSUMPTION FOR VARIOUS TURBOJET-AFTERBURNER FUELS. James F. Morris. October 1956. 73p. diagrs. (NACA RM E56A23)

THEORETICAL ANALYSIS OF TOTAL-PRESSURE LOSS AND AIRFLOW DISTRIBUTION FOR TUBULAR TURBOJET COMBUSTORS WITH CONSTANT ANNULUS AND LINER CROSS-SECTIONAL AREAS. Charles C. Graves and Jack S. Grobman. January 1957. 85p. diagrs., tab. (NACA RM E56I04)

STABILITY OF PROPANE-AIR FLAMES IN VORTEX FLOW. A. E. Potter, Jr., E. L. Wong, and A. T. Berlad. February 1958. 27p. diagrs., tab. (NACA TN 4210)

DISCHARGE COEFFICIENTS FOR COMBUSTOR-LINER AIR-ENTRY HOLES. II - FLUSH RECTANGULAR HOLES, STEP LOUVERS, AND SCOOPS. Ralph T. Dittrich. April 1958. 56p. diagrs., tab. (NACA TN 3924)

(3.5.1)
GENERAL COMBUSTION RESEARCH

TURBOJET COMBUSTOR EFFICIENCY WITH CERAMIC-COATED LINERS AND WITH MECHANICAL CONTROL OF FUEL WASH ON WALLS. Helmut F. Butze and Edmund R. Jonash. November 1952. 43p. photos., diagrs., tabs. (NACA RM E52I25)

PRELIMINARY EXPERIMENTS WITH PILOT BURNERS FOR RAM-JET COMBUSTORS. John M. Farley, Robert E. Smith, and John H. Povolny. January 1953. 45p. diagrs., photos., tabs. (NACA RM E52J23)

PRELIMINARY INVESTIGATION OF AN ANNULAR TURBOJET COMBUSTOR HAVING A CATALYTIC-COATED LINER. Carl T. Norgren and J. Howard Childs. January 1954. 11p. diagrs. (NACA RM E53L07)

HIGH-ALTITUDE PERFORMANCE OF 9.5-INCH-DIAMETER TUBULAR EXPERIMENTAL COMBUSTOR WITH FUEL STAGING. Wilfred E. Scull. March 1954. 55p. diagrs., photos., tabs. (NACA RM E54A06)

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PERFORMANCE OF A PAIR OF TUBULAR COMBUSTORS WITH AN EXTERNAL PILOT CHAMBER. Robert Friedman and Eugene V. Zettle. September 1954. 26p. diagrs., tab. (NACA RM E54E11)

PHOTOGRAPHIC INVESTIGATION OF AIR-FLOW PATTERNS IN TRANSPARENT ONE-SIXTH SECTOR OF ANNULAR TURBOJET-ENGINE COMBUSTOR WITH AXIAL-SLOT-TYPE AIR ADMISSION. Charles C. Graves and J. Dean Gernon. December 1954. 24p. diagrs., photos. (NACA RM E54I28a)

FLIGHT AND PREFLIGHT TESTS OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND UTILIZING A SOLID-PROPELLANT GAS GENERATOR FOR FUEL EXPULSION. Walter A. Bartlett, Jr., and William K. Hagginbothom, Jr. April 1955. 35p. diagrs., photos. (NACA RM L55A24)

COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Edward A. Fletcher, Robert G. Dorsch, and Melvin Gerstein. June 1955. 72p. diagrs., photos., tabs. (NACA RM E55D07a)

EFFECTIVENESS OF A TURBOJET TUBULAR COMBUSTOR IN SCREENING THE TURBINE FROM FOREIGN OBJECTS. Patrick T. Chiarito. July 1955. 20p. diagrs., photos. (NACA RM E55E16)

A PRELIMINARY INVESTIGATION OF STATIC-PRESSURE CHANGES ASSOCIATED WITH COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. August 1955. 12p. diagrs., photos. (NACA RM E55F07)

ANALYTICAL COMPARISON OF CONVECTION-COOLED TURBINE BLADE COOLING-AIR REQUIREMENTS FOR SEVERAL RADIAL GAS-TEMPERATURE PROFILES. James E. Hubbartt and Henry O. Slone. September 1955. 46p. diagrs. (NACA RM E55G14)

PREFLIGHT AND FLIGHT-TEST INVESTIGATION OF A 50-PERCENT-MAGNESIUM 50-PERCENT JP-4 SLURRY FUEL IN A TWIN-ENGINE RAM-JET VEHICLE. Otto F. Trout, Jr., and Thomas L. Kennedy. May 1956. 27p. diagrs., photos. (NACA RM L56C06)

RELATION OF TURBOJET AND RAMJET COMBUSTION EFFICIENCY TO SECOND-ORDER REACTION KINETICS AND FUNDAMENTAL FLAME SPEED. J. Howard Childs, Thaine W. Reynolds, and Charles C. Graves. 1957. ii, 13p. diagrs (NACA Rept. 1334)

THE HEAT OF COMBUSTION OF TETRAETHYLDIBORANE. Stanley Tannenbaum. January 1957. 5p. tabs. (NACA RM E53E11)

PERFORMANCE OF AN EXPERIMENTAL ANNULAR TURBOJET COMBUSTOR WITH METHANE AND PROPANE. Carl T. Norgren. January 1957. 27p. diagrs., tabs. (NACA RM E56J22)

FLIGHT INVESTIGATION OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND HAVING A CONICAL SHOCK INLET DESIGNED FOR A MACH NUMBER OF 4.1. Walter A. Bartlett, Jr., and Charles F. Merlet. January 1957. 23p. diagrs., photos. (NACA RM L56I24a)

EXPLORATORY INVESTIGATION OF AERODYNAMIC EFFECTS OF EXTERNAL COMBUSTION OF ALUMINUM BOROHYDRIDE IN AIRSTREAM ADJACENT TO FLAT PLATE IN MACH 2.46 TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. July 1957. 91p. diagrs., photos., tabs. (NACA RM E57E16)

EXPERIMENTAL AND CALCULATED HISTORIES OF VAPORIZING FUEL DROPS. R. J. Priem, G. L. Borman, M. M. El Wakil, O. A. Uyehara, and P. S. Myers, University of Wisconsin. August 1957. 66p. diagrs. (NACA TN 3988)

EXPLORATORY INVESTIGATION OF STATIC- AND BASE-PRESSURE INCREASES RESULTING FROM COMBUSTION OF ALUMINUM BOROHYDRIDE ADJACENT TO BODY OF REVOLUTION IN SUPERSONIC WIND TUNNEL. John S. Serafini, Robert G. Dorsch, and Edward A. Fletcher. October 1957. 49p. diagrs., photos., tabs. (NACA RM E57E15)

EFFECT OF PRESSURE AND DUCT GEOMETRY ON BLUFF-BODY FLAME STABILIZATION. Andrew E. Potter, Jr., and Edgar L. Wong. September 1958. 31p. diagrs., tab. (NACA TN 4381)

(3.5.1.1) LAMINAR-FLOW COMBUSTION

BASIC CONSIDERATIONS IN THE COMBUSTION OF HYDROCARBON FUELS WITH AIR. Propulsion Chemistry Division. Edited by Henry C. Barnett and Robert R. Hibbard. Chap. I: ATOMIZATION AND EVAPORATION OF LIQUID FUELS. Charles C. Graves and Donald W. Bahr. Chap. II: FLOW AND MIXING PROCESSES IN COMBUSTION CHAMBERS. Wilfred E. Scull and William R. Mickelsen. Chap. III: IGNITION AND FLAMMABILITY OF HYDROCARBON FUELS. Frank E. Belles and Clyde C. Swett. Chap. IV: LAMINAR FLAME PROPAGATION. Gordon L. Dugger, Dorothy M. Simon, and Melvin Gerstein. Chap. V: TURBULENT FLAMES. Melvin Gerstein and Gordon L. Dugger. Chap. VI: FLAME STABILIZATION. Gordon L. Dugger and Melvin Gerstein. Chap. VII: DIFFUSION FLAMES. Richard S. Brokaw and Melvin Gerstein. Chap. VIII: OSCILLATIONS IN COMBUSTORS. Perry L. Blackshear, Jr., and Warren D. Rayle. Chap. IX: SMOKE AND COKE FORMATION IN THE COMBUSTION OF HYDROCARBON-AIR MIXTURES. Rose L. Schalla and Robert R. Hibbard. 1957. xi, 259p. diagrs., photos., tabs. (NACA Rept. 1300)

SURVEY OF HYDROGEN COMBUSTION PROPERTIES. Isadore L. Drell and Frank E. Belles. July 1957. (ii), 86p. diagrs., tabs. (NACA RM E57D24)

STABILITY LIMITS AND BURNING VELOCITIES FOR SOME LAMINAR AND TURBULENT PROPANE AND HYDROGEN FLAMES AT REDUCED PRESSURE. Burton Fine. August 1957. 49p. diagrs., tabs. (NACA TN 4031)

EFFECT OF INITIAL MIXTURE-TEMPERATURE ON BURNING VELOCITY OF HYDROGEN-AIR MIXTURES WITH PREHEATING AND SIMULATED PREBURNING. Sheldon Heimel. October 1957. 23p. diagrs., tabs. (NACA TN 4156)

STUDIES OF OH, CO, CH, AND C_2 RADIATION FROM LAMINAR AND TURBULENT PROPANE-AIR AND ETHYLENE-AIR FLAMES. Thomas P. Clark. June 1958. 23p. diagrs., photos. (NACA TN 4266)

(3.5.1.2)
TURBULENT-FLOW COMBUSTION

BASIC CONSIDERATIONS IN THE COMBUSTION OF HYDROCARBON FUELS WITH AIR. Propulsion Chemistry Division. Edited by Henry C. Barnett and Robert R. Hibbard. Chap. I: ATOMIZATION AND EVAPORATION OF LIQUID FUELS. Charles C. Graves and Donald W. Bahr. Chap. II: FLOW AND MIXING PROCESSES IN COMBUSTION CHAMBERS. Wilfred E. Scull and William R. Mickelsen. Chap. III: IGNITION AND FLAMMABILITY OF HYDROCARBON FUELS. Frank E. Belles and Clyde C. Swett. Chap. IV: LAMINAR FLAME PROPAGATION. Gordon L. Dugger, Dorothy M. Simon, and Melvin Gerstein. Chap. V: TURBULENT FLAMES. Melvin Gerstein and Gordon L. Dugger. Chap. VI: FLAME STABILIZATION. Gordon L. Dugger and Melvin Gerstein. Chap. VII: DIFFUSION FLAMES. Richard S. Brokaw and Melvin Gerstein. Chap. VIII: OSCILLATIONS IN COMBUSTORS. Perry L. Blackshear, Jr., and Warren D. Rayle. Chap. IX: SMOKE AND COKE FORMATION IN THE COMBUSTION OF HYDROCARBON-AIR MIXTURES. Rose L. Schalla and Robert R. Hibbard. 1957. xi, 259p. diagrs., photos., tabs. (NACA Rept. 1300)

SURVEY OF HYDROGEN COMBUSTION PROPERTIES. Isadore L. Drell and Frank E. Belles. July 1957. (ii), 86p. diagrs., tabs. (NACA RM E57D24)

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STUDIES OF OH, CO, CH, AND C_2 RADIATION FROM LAMINAR AND TURBULENT PROPANE-AIR AND ETHYLENE-AIR FLAMES. Thomas P. Clark. June 1958. 23p. diagrs., photos. (NACA TN 4266)

AN ANALYTICAL STUDY OF TURBULENT AND MOLECULAR MIXING IN ROCKET COMBUSTION. David A. Bittker. September 1958. 22p. diagrs. (NACA TN 4321)

(3.5.1.3)
DETONATION

SURVEY OF HYDROGEN COMBUSTION PROPERTIES. Isadore L. Drell and Frank E. Belles. July 1957. (ii), 86p. diagrs., tabs. (NACA RM E57D24)

(3.5.1.4)
EFFECTS OF FUEL ATOMIZATION

TURBOJET COMBUSTOR EFFICIENCY AT HIGH ALTITUDES. Walter T. Olson, J. Howard Childs, and Edmund R. Jonash. October 27, 1950. 51p. diagrs., photo. (NACA RM E50I07)

VAPOR-FUEL-DISTRIBUTION EFFECTS ON COMBUSTION PERFORMANCE OF A SINGLE TUBULAR COMBUSTOR. Richard J. McCafferty. December 13, 1950. 27p. diagrs., photo. (NACA RM E50J03)

LIQUID-FUEL-DISTRIBUTION AND FUEL-STATE EFFECTS ON COMBUSTION PERFORMANCE OF A SINGLE TUBULAR COMBUSTOR. Richard J. McCafferty. May 1, 1951. 38p. diagrs., tab. (NACA RM E51B21)

ALTITUDE PERFORMANCE INVESTIGATION OF SINGLE- AND DOUBLE-ANNULAR TURBOJET-ENGINE COMBUSTORS WITH VARIOUS SIZE FUEL NOZZLES. James L. Harp, Jr., and Kenneth R. Vincent. June 1952. 60p. photos., diagrs., tab. (NACA RM E51L14)

TURBOJET COMBUSTOR EFFICIENCY WITH CERAMIC-COATED LINERS AND WITH MECHANICAL CONTROL OF FUEL WASH ON WALLS. Helmut F. Butze and Edmund R. Jonash. November 1952. 43p. photos., diagrs., tabs. (NACA RM E52I25)

INJECTION PRINCIPLES FOR LIQUID OXYGEN AND HEPTANE USING TWO-ELEMENT INJECTORS. Marcus F. Heidmann. June 1956. 30p. diagrs., photos., tab. (NACA RM E56D04)

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A STUDY OF INJECTION PROCESSES FOR LIQUID OXYGEN AND GASEOUS HYDROGEN IN A 200-POUND-THRUST ROCKET ENGINE. Carmon M. Auble. January 1957. 32p. diagrs., photos. (NACA RM E56I25a)

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PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; EXPERIMENTAL EFFECT OF FUEL TEMPERATURE ON LIQUID-OXYGEN - HEPTANE PERFORMANCE. M. F. Heidmann. July 1957. 21p. diagrs., tabs. (NACA RM E57E03)

INJECTION PRINCIPLES FOR LIQUID OXYGEN AND HEPTANE USING NINE-ELEMENT INJECTORS IN AN 1800-POUND-THRUST ROCKET ENGINE. Richard F. Neu. July 1957. 27p. diagrs., photos., tab. (NACA RM E57E13)

EFFECT OF FUEL-ORIFICE DIAMETER ON PERFORMANCE OF HEPTANE-OXYGEN ROCKET ENGINES. Richard J. Priem and Martin Hersch. February 1958. 20p. diagrs. (NACA RM E57I26)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET ENGINE DESIGN; RELATION BETWEEN PERCENTAGE OF PROPELLANT VAPORIZED AND ENGINE PERFORMANCE. Marcus F. Heidmann and Richard J. Priem. March 1958. 19p. diagrs. (NACA TN 4219)

EFFECT OF FUEL DROP SIZE AND INJECTOR CONFIGURATION ON SCREAMING IN A 200-POUND-THRUST ROCKET ENGINE USING LIQUID OXYGEN AND HEPTANE. Charles E. Feiler. June 1958. 27p. diagrs., photos., tab. (NACA RM E58A20a)

COMBUSTOR PERFORMANCE WITH VARIOUS HYDROGEN-OXYGEN INJECTION METHODS IN A 200-POUND-THRUST ROCKET ENGINE. M. F. Heidmann and Louis Baker, Jr. September 1958. 45p. diagrs., photos., tab. (NACA RM E58E21)

GRAPHS OF REDUCED VARIABLES FOR COMPUTING HISTORIES OF VAPORIZING FUEL DROPS, AND DROP HISTORIES UNDER PRESSURE. G. L. Borman, M. M. El Wakil, O. A. Uyehara, and P. S. Myers, University of Wisconsin. September 1958. (i), 55p. diagrs., tab. (NACA TN 4338)

(3.5.1.5) REACTION MECHANISMS

A SUMMARY OF PRELIMINARY INVESTIGATIONS INTO THE CHARACTERISTICS OF COMBUSTION SCREECH IN DUCTED BURNERS. Lewis Laboratory Staff. April 1954. 60p. diagrs., photos. (NACA RM E54B02)

A STUDY OF FUEL-NITRIC ACID REACTIVITY. Charles E. Feiler and Louis Baker, Jr. April 1956. 48p. diagrs., photo., tabs. (NACA RM E56A19)

EFFECT OF FUELS ON SCREAMING IN 200-POUND-THRUST LIQUID-OXYGEN - FUEL ROCKET ENGINE. Isaac Pass and Adelbert O. Tischler. June 1956. 25p. diagrs., photos., tab. (NACA RM E56C10)

SPONTANEOUS IGNITION OF PENTABORANE SPRAYS IN A HOT-AIR STREAM. Erwin A. Lezberg and Albert M. Lord. November 1956. 26p. diagrs. (NACA RM E55F29a)

BASIC CONSIDERATIONS IN THE COMBUSTION OF HYDROCARBON FUELS WITH AIR. Propulsion Chemistry Division. Edited by Henry C. Barnett and Robert R. Hibbard. Chap. I: ATOMIZATION AND EVAPORATION OF LIQUID FUELS. Charles C. Graves and Donald W. Bahr. Chap. II: FLOW AND MIXING PROCESSES IN COMBUSTION CHAMBERS. Wilfred E. Scull and William R. Mickelsen. Chap. III: IGNITION AND FLAMMABILITY OF HYDROCARBON FUELS. Frank E. Belles and Clyde C. Swett. Chap. IV: LAMINAR FLAME PROPAGATION. Gordon L. Dugger, Dorothy M. Simon, and Melvin Gerstein. Chap. V: TURBULENT FLAMES. Melvin Gerstein and Gordon L. Dugger. Chap. VI: FLAME STABILIZATION. Gordon L. Dugger and Melvin Gerstein. Chap. VII: DIFFUSION FLAMES. Richard S. Brokaw and Melvin Gerstein. Chap. VIII: OSCILLATIONS IN COMBUSTORS. Perry L. Blackshear, Jr., and Warren D. Rayle. Chap. IX: SMOKE AND COKE FORMATION IN THE COMBUSTION OF HYDROCARBON-AIR MIXTURES. Rose L. Schalla and Robert R. Hibbard. 1957. xi, 259p. diagrs., photos., tabs. (NACA Rept. 1300)

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(3.5.1.6) IGNITION OF GASES

EFFECT OF FUEL VOLATILITY ON ALTITUDE STARTING LIMITS OF A TURBOJET ENGINE. H. D. Wilsted and J. C. Armstrong. September 11, 1950. 27p. diagrs., tabs. (NACA RM E50G10)

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SPARK IGNITION OF FLOWING GASES. Clyde C. Swett, Jr. 1956. ii, 18p. diagrs., tabs. (NACA Rept. 1287)

EFFECTS OF VARIATIONS IN COMBUSTION-CHAMBER CONFIGURATION ON IGNITION DELAY IN A 50-POUND-THRUST ROCKET. Dezso J. Ladanyi. October 1956. 53p. diagrs., photos., tabs. (NACA RM E56F22)

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(3.5.2)
EFFECT OF ENGINE OPERATING CONDITIONS AND COMBUSTION CHAMBER GEOMETRY

INVESTIGATION OF EFFECTS OF SEVERAL FUEL-INJECTION LOCATIONS ON OPERATIONAL PERFORMANCE OF A 20-INCH RAM JET. W. H. Sterbentz, E. Perchonok, and F. A. Wilcox. June 8, 1948. 39p. diagrs., photos. (NACA RM E7L02)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF TAIL-PIPE BURNER WITH CONVERGING CONICAL BURNER SECTION ON J35-A-5 TURBOJET ENGINE. H. Carl Thorman and Carl E. Campbell. February 10, 1950. 60p. diagrs., photos., tab. (NACA RM E9I16)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF 29-INCH-DIAMETER TAIL-PIPE BURNER WITH SEVERAL FUEL SYSTEMS AND FUEL-COOLED STAGE-TYPE FLAME HOLDERS ON J35-A-5 TURBOJET ENGINE. Richard L. Golladay and Harry E. Bloomer. April 28, 1950. 57p. diagrs., photos., tab. (NACA RM E50A19)

INVESTIGATION OF ALTITUDE IGNITION, ACCELERATION AND STEADY-STATE OPERATION WITH SINGLE COMBUSTOR OF J47 TURBOJET ENGINE. William P. Cook and Helmut F. Butze. March 5, 1951. 35p. diagrs., photo., tab. (NACA RM E51A25)

COMBUSTION EFFICIENCY PERFORMANCE OF A MIL-F-5624 TYPE FUEL AND MONOMETHYLNAPHTHALENE IN A SINGLE VAPORIZING-TYPE COMBUSTOR. Anthony W. Jones and William P. Cook. February 1952. 26p. diagrs., photos., tabs. (NACA RM E51K30)

TURBOJET COMBUSTOR EFFICIENCY WITH CERAMIC-COATED LINERS AND WITH MECHANICAL CONTROL OF FUEL WASH ON WALLS. Helmut F. Butze and Edmund R. Jonash. November 1952. 43p. photos., diagrs., tabs. (NACA RM E52I25)

ALTITUDE PERFORMANCE INVESTIGATION OF TWO SINGLE-ANNULAR TYPE COMBUSTORS AND THE PROTOTYPE J40-WE-8 TURBOJET ENGINE COMBUSTOR WITH VARIOUS COMBUSTOR INLET-AIR PRESSURE PROFILES. Adam E. Sobolewski, Robert R. Miller, and John E. McAulay. May 1953. 46p. diagrs., photos., tab. (NACA RM E52J07)

EFFECT OF DIFFUSER DESIGN, DIFFUSER-EXIT VELOCITY PROFILE, AND FUEL DISTRIBUTION ON ALTITUDE PERFORMANCE OF SEVERAL AFTERBURNER CONFIGURATIONS. E. William Conrad, Frederick W. Schulze, and Karl H. Usow. July 1953. 63p. diagrs., photos., tab. (NACA RM E53A30)

ENGINEERING METHOD OF RAM-JET THRUST DETERMINATION BASED ON EXPERIMENTALLY OBTAINED COMBUSTOR PARAMETERS. H. Rudolph Dettwyler and Maxime A. Faget. August 1953. 44p. diagrs., tab. (NACA RM L53E21)

EFFECT OF INLET-AIR TEMPERATURE ON PERFORMANCE OF A 16-INCH RAM-JET COMBUSTOR. A. J. Cervenka, E. E. Dangle, and Robert Friedman. October 1953. 24p. diagrs., tab. (NACA RM E53I03)

EXPERIMENTAL INVESTIGATION OF SCREECHING COMBUSTION IN FULL-SCALE AFTERBURNER. Karl H. Usow, Carl L. Meyer, and Frederick W. Schulze. December 1953. 62p. diagrs., photos., tab. (NACA RM E53I01)

HIGH-ALTITUDE PERFORMANCE OF 9.5-INCH-DIAMETER TUBULAR EXPERIMENTAL COMBUSTOR WITH FUEL STAGING. Wilfred E. Scull. March 1954. 55p. diagrs., photos., tabs. (NACA RM E54A06)

A SUMMARY OF PRELIMINARY INVESTIGATIONS INTO THE CHARACTERISTICS OF COMBUSTION SCREECH IN DUCTED BURNERS. Lewis Laboratory Staff. April 1954. 60p. diagrs., photos. (NACA RM E54B02)

SOME SCREECHING-COMBUSTION CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER HAVING A POROUS WALL OF WIRE CLOTH. William K. Koffel, James L. Harp, Jr., and Lively Bryant. November 1954. 12p. diagrs. (NACA RM E54H27)

PHOTOGRAPHIC INVESTIGATION OF AIR-FLOW PATTERNS IN TRANSPARENT ONE-SIXTH SECTOR OF ANNULAR TURBOJET-ENGINE COMBUSTOR WITH AXIAL-SLOT-TYPE AIR ADMISSION. Charles C. Graves and J. Dean Gernon. December 1954. 24p. diagrs., photos. (NACA RM E54I28a)

EFFECTIVENESS OF A TURBOJET TUBULAR COMBUSTOR IN SCREENING THE TURBINE FROM FOREIGN OBJECTS. Patrick T. Chiarito. July 1955. 20p. diagrs., photos. (NACA RM E55E16)

EFFECTS OF INLET-AIR-FLOW DISTORTION ON STEADY-STATE ALTITUDE PERFORMANCE OF AN AXIAL-FLOW TURBOJET ENGINE. William Conrad, Morgan P. Hanson, and John E. McAulay. September 1955. 47p. diagrs., photo. (NACA RM E55A04)

ANALYTICAL AND EXPERIMENTAL STUDY OF TRANSIENT-RESPONSE CHARACTERISTICS OF A TURBOPROP ENGINE. R. T. Craig, S. Nakanishi, and D. B. Wile. October 1955. 50p. diagrs., photo., tabs. (NACA RM E55C23)

EXPLORATORY INVESTIGATION OF A HELICOPTER PRESSURE-JET SYSTEM ON THE LANGLEY HELICOPTER TEST TOWER. Robert A. Makofski and James P. Shivers. July 1956. 38p. diagrs., photo. (NACA RM L56B17)

SPONTANEOUS IGNITION OF PENTABORANE SPRAYS IN A HOT-AIR STREAM. Erwin A. Lezberg and Albert M. Lord. November 1956. 26p. diagrs. (NACA RM E55F29a)

DROP BURNING RATES OF HYDROCARBON AND NONHYDROCARBON FUELS. Arthur L. Smith and Charles C. Graves. August 1957. 22p. diagrs., photos., tabs. (NACA RM E57F11)

SUMMARY OF NACA RESEARCH ON IGNITION LAG OF SELF-IGNITING FUEL - NITRIC ACID PROPELLANTS. Gerald Morrell. October 1957. 48p. diagrs., photos., tabs. (NACA RM E57G19)

EFFECT OF INITIAL MIXTURE-TEMPERATURE ON BURNING VELOCITY OF HYDROGEN-AIR MIXTURES WITH PREHEATING AND SIMULATED PREBURNING. Sheldon Heimel. October 1957. 23p. diagrs., tabs. (NACA TN 4156)

(3.5.2.2) TURBINE ENGINES

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL- AND CENTRIFUGAL-COMPRESSOR TURBOJET ENGINES BY INJECTION OF WATER AND ALCOHOL IN COMBUSTION CHAMBERS. David S. Gabriel, Harry W. Dowman, and William L. Jones. April 13, 1950. 43p. diagrs., photo. (NACA RM E9K29)

NACA RESEARCH ON COMBUSTORS FOR AIRCRAFT GAS TURBINES. I - EFFECT OF OPERATING VARIABLES ON STEADY-STATE PERFORMANCE. Walter T. Olson and J. Howard Childs. October 18, 1950. 55p. diagrs., tab. (NACA RM E50H31)

TURBOJET COMBUSTOR EFFICIENCY AT HIGH ALTITUDES. Walter T. Olson, J. Howard Childs, and Edmund R. Jonash. October 27, 1950. 51p. diagrs., photo. (NACA RM E50I07)

VAPOR-FUEL-DISTRIBUTION EFFECTS ON COMBUSTION PERFORMANCE OF A SINGLE TUBULAR COMBUSTOR. Richard J. McCafferty. December 13, 1950. 27p. diagrs., photo. (NACA RM E50J03)

INVESTIGATION OF ALTITUDE IGNITION, ACCELERATION AND STEADY-STATE OPERATION WITH SINGLE COMBUSTOR OF J47 TURBOJET ENGINE. William P. Cook and Helmut F. Butze. March 5, 1951. 35p. diagrs., photo., tab. (NACA RM E51A25)

LIQUID-FUEL-DISTRIBUTION AND FUEL-STATE EFFECTS ON COMBUSTION PERFORMANCE OF A SINGLE TUBULAR COMBUSTOR. Richard J. McCafferty. May 1, 1951. 38p. diagrs., tab. (NACA RM E51B21)

COMBUSTION EFFICIENCY PERFORMANCE OF A MIL-F-5624 TYPE FUEL AND MONOMETHYLNAPHTHALENE IN A SINGLE VAPORIZING-TYPE COMBUSTOR. Anthony W. Jones and William P. Cook. February 1952. 26p. diagrs., photos., tabs. (NACA RM E51K30)

ALTITUDE PERFORMANCE INVESTIGATION OF TWO FLAME-HOLDER AND FUEL-SYSTEM CONFIGURATIONS IN SHORT AFTERBURNER. S. C. Huntley and H. D. Wilsted. May 1952. 41p. diagrs., photos., tab. (NACA RM E52B25)

ALTITUDE PERFORMANCE INVESTIGATION OF SINGLE- AND DOUBLE-ANNULAR TURBOJET-ENGINE COMBUSTORS WITH VARIOUS SIZE FUEL NOZZLES. James L. Harp, Jr., and Kenneth R. Vincent. June 1952. 60p. photos., diagrs., tab. (NACA RM E51L14)

COMPONENT AND OVER-ALL PERFORMANCE EVALUATION OF AN AXIAL-FLOW TURBOJET ENGINE OVER A RANGE OF ENGINE-INLET REYNOLDS NUMBERS. Curtis L. Walker, S. C. Huntley, and W. M. Braithwaite. July 1952. 42p. diagrs., tabs. (NACA RM E52B08)

EFFECT OF WATER VAPOR ON COMBUSTION OF MAGNESIUM-HYDROCARBON SLURRY FUELS IN SMALL-SCALE AFTERBURNER. Leonard K. Tower. October 1952. 39p. diagrs., tabs. (NACA RM E52H25)

TURBOJET COMBUSTOR EFFICIENCY WITH CERAMIC-COATED LINERS AND WITH MECHANICAL CONTROL OF FUEL WASH ON WALLS. Helmut F. Butze and Edmund R. Jonash. November 1952. 43p. photos., diagrs., tabs. (NACA RM E52I25)

ALTITUDE STARTING CHARACTERISTICS OF AN AFTERBURNER WITH AUTOIGNITION AND HOT-STREAK IGNITION. P. E. Renas, R. W. Harvey, Sr., and E. T. Jansen. April 1953. 25p. diagrs., photos., tab. (NACA RM E53B02)

ALTITUDE PERFORMANCE INVESTIGATION OF TWO SINGLE-ANNULAR TYPE COMBUSTORS AND THE PROTOTYPE J40-WE-8 TURBOJET ENGINE COMBUSTOR WITH VARIOUS COMBUSTOR INLET-AIR PRESSURE PROFILES. Adam E. Sobolewski, Robert R. Miller, and John E. McAulay. May 1953. 46p. diagrs., photos., tab. (NACA RM E52J07)

ALUMINUM BOROHYDRIDE AS AN IGNITION SOURCE FOR TURBOJET COMBUSTORS. David M. Straight, Edward A. Fletcher, and Hampton H. Foster. September 1953. 19p. diagrs., photos., tabs. (NACA RM E53G15)

PRELIMINARY INVESTIGATION OF AN ANNULAR TURBOJET COMBUSTOR HAVING A CATALYTIC-COATED LINER. Carl T. Norgren and J. Howard Childs. January 1954. 11p. diagrs. (NACA RM E53L07)

HIGH-ALTITUDE PERFORMANCE OF 9.5-INCH-DIAMETER TUBULAR EXPERIMENTAL COMBUSTOR WITH FUEL STAGING. Wilfred E. Scull. March 1954. 55p. diagrs., photos., tabs. (NACA RM E54A06)

LOW-PRESSURE PERFORMANCE OF EXPERIMENTAL PREVAPORIZING TUBULAR COMBUSTOR USING APPROXIMATELY STOICHIOMETRIC ADMISSION OF FUEL-AIR MIXTURE INTO THE PRIMARY ZONE. Robert R. Hibbard, Allen J. Metzler, and Wilfred E. Scull. August 1954. 38p. diagrs., tabs. (NACA RM E54F25a)

PERFORMANCE OF A PAIR OF TUBULAR COMBUSTORS WITH AN EXTERNAL PILOT CHAMBER. Robert Friedman and Eugene V. Zettle. September 1954. 26p. diagrs., tab. (NACA RM E54E11)

PHOTOGRAPHIC INVESTIGATION OF AIR-FLOW PATTERNS IN TRANSPARENT ONE-SIXTH SECTOR OF ANNULAR TURBOJET-ENGINE COMBUSTOR WITH AXIAL-SLOT-TYPE AIR ADMISSION. Charles C. Graves and J. Dean Gernon. December 1954. 24p. diagrs., photos. (NACA RM E54I28a)

ALUMINUM BOROHYDRIDE - HYDROCARBON MIXTURES AS A SOURCE OF IGNITION FOR A TURBOJET COMBUSTOR. Hampton H. Foster, Edward A. Fletcher, and David M. Straight. February 1955. 24p. diagrs., photo., tabs. (NACA RM E54K12)

MODIFIED TUBULAR COMBUSTORS AS HIGH-TEMPERATURE GAS GENERATORS. Robert Friedman and Eugene V. Zettle. October 1955. 17p. diagrs., photos., tabs. (NACA RM E55H25)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

BASIC CONSIDERATIONS IN THE COMBUSTION OF HYDROCARBON FUELS WITH AIR. Propulsion Chemistry Division. Edited by Henry C. Barnett and Robert R. Hibbard. Chap. I: ATOMIZATION AND EVAPORATION OF LIQUID FUELS. Charles C. Graves and Donald W. Bahr. Chap. II: FLOW AND MIXING PROCESSES IN COMBUSTION CHAMBERS. Wilfred E. Scull and William R. Mickelsen. Chap. III: IGNITION AND FLAMMABILITY OF HYDROCARBON FUELS. Frank E. Belles and Clyde C. Swett. Chap. IV: LAMINAR FLAME PROPAGATION. Gordon L. Dugger, Dorothy M. Simon, and Melvin Gerstein. Chap. V: TURBULENT FLAMES. Melvin Gerstein and Gordon L. Dugger. Chap. VI: FLAME STABILIZATION. Gordon L. Dugger and Melvin Gerstein. Chap. VII: DIFFUSION FLAMES. Richard S. Brokaw and Melvin Gerstein. Chap. VIII: OSCILLATIONS IN COMBUSTORS. Perry L. Blackshear, Jr., and Warren D. Rayle. Chap. IX: SMOKE AND COKE FORMATION IN THE COMBUSTION OF HYDROCARBON-AIR MIXTURES. Rose L. Schalla and Robert R. Hibbard. 1957. xi, 259p. diagrs., photos., tabs. (NACA Rept. 1300)

RELATION OF TURBOJET AND RAMJET COMBUSTION EFFICIENCY TO SECOND-ORDER REACTION KINETICS AND FUNDAMENTAL FLAME SPEED. J. Howard Childs, Thaine W. Reynolds, and Charles C. Graves. 1957. ii, 13p. diagrs. (NACA Rept. 1334)

INVESTIGATION OF 70 PERCENT TRIMETHYL BORATE - 30 PERCENT METHYL ALCOHOL FUEL MIXTURE IN A SINGLE J33 COMBUSTOR AND IN A J33 TURBOJET ENGINE. Louis J. Schafer, Jr., and Robert O. Hickel. January 1957. 26p. diagrs., photos., tab. (NACA RM E53C24)

PERFORMANCE OF AN EXPERIMENTAL ANNULAR TURBOJET COMBUSTOR WITH METHANE AND PROPANE. Carl T. Norgren. January 1957. 27p. diagrs., tabs. (NACA RM E56J22)

EFFECT OF FUEL VARIABLES ON CARBON FORMATION IN TURBOJET-ENGINE COMBUSTORS. Edmund R. Jonash, Jerrold D. Wear, and William P. Cook. 1958. ii, 18p. diagrs., photos., tabs. (NACA Rept. 1352. Supersedes RM E52G11, RM E52H21, RM E53D15, RM E54H23, RM E55D28, RM E55F30a, RM E55J31)

(3.5.2.3) RAM-JET ENGINES

INVESTIGATION OF EFFECTS OF SEVERAL FUEL-INJECTION LOCATIONS ON OPERATIONAL PERFORMANCE OF A 20-INCH RAM JET. W. H. Sterbentz, E. Perchonok, and F. A. Wilcox. June 8, 1948. 39p. diagrs., photos. (NACA RM E7L02)

INVESTIGATION OF COMBUSTION IN 16-INCH RAM JET UNDER SIMULATED CONDITIONS OF HIGH ALTITUDE AND HIGH MACH NUMBER. T. J. Nussdorfer, D. C. Sederstrom, and E. Perchonok. June 27, 1950. 53p. diagrs., photos., tabs. (NACA RM E50D04)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. I - COMBUSTION AND OPERATIONAL PERFORMANCE OF FOUR COMBUSTION-CHAMBER CONFIGURATIONS. W. L. Jones, T. B. Shillito, and J. G. Henzel, Jr. August 23, 1950. 53p. diagrs., photos. (NACA RM E50F16)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. II - EFFECTS OF GUTTER WIDTH AND BLOCKED AREA ON OPERATING RANGE AND COMBUSTION EFFICIENCY. T. B. Shillito, W. L. Jones, and R. W. Kahn. November 6, 1950. 58p. diagrs. (NACA RM E50H21)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. III - COMBUSTION AND OPERATIONAL PERFORMANCE OF THREE FLAME HOLDERS WITH A CENTER PILOT BURNER. Thomas B. Shillito, George G. Younger, and James G. Henzel, Jr. February 6, 1951. 30p. diagrs. (NACA RM E50J20)

INTERNAL FLOW AND BURNING CHARACTERISTICS OF 16-INCH RAM JET OPERATING IN A FREE JET AT MACH NUMBERS OF 1.35 AND 1.73. Eugene Perchonok and John M. Farley. May 21, 1951. 37p. diagrs., photos., tab. (NACA RM E51C16)

ALTITUDE-TEST-CHAMBER INVESTIGATION OF PERFORMANCE OF A 28-INCH RAM-JET ENGINE. IV - EFFECT OF INLET-AIR TEMPERATURE, COMBUSTION-CHAMBER-INLET MACH NUMBER, AND FUEL VOLATILITY ON COMBUSTION PERFORMANCE. Robert W. Kahn, Shigeo Nakanishi, and James L. Harp, Jr. July 1951. 27p. diagrs. (NACA RM E51D11)

EFFECT OF WATER VAPOR ON COMBUSTION OF MAGNESIUM-HYDROCARBON SLURRY FUELS IN SMALL-SCALE AFTERBURNER. Leonard K. Tower. October 1952. 39p. diagrs., tabs. (NACA RM E52H25)

PRELIMINARY EXPERIMENTS WITH PILOT BURNERS FOR RAM-JET COMBUSTORS. John M. Farley, Robert E. Smith, and John H. Povolny. January 1953. 45p. diagrs., photos., tabs. (NACA RM E52J23)

EFFECT OF FUEL-AIR RATIO CONCENTRATION IN COMBUSTION ZONE ON COMBUSTION PERFORMANCE OF A 16-INCH RAM-JET ENGINE. A. J. Cervenka, D. W. Bahr, and E. E. Dangle. April 1953. 24p. diagrs., tab. (NACA RM E53B19)

FREE-JET ALTITUDE INVESTIGATION OF A 20-INCH RAM-JET COMBUSTOR WITH A RICH INNER ZONE OF COMBUSTION FOR IMPROVED LOW-TEMPERATURE-RATIO OPERATION. Arthur M. Trout and Carl B. Wentworth. May 1953. 28p. diagrs., photo (NACA RM E52L26)

EFFECT OF FUEL INJECTOR LOCATION AND MIXTURE CONTROL ON PERFORMANCE OF A 16-INCH RAM-JET CAN-TYPE COMBUSTOR. A. J. Cervenka, Eugene Perchonok, and E. E. Dangle. July 1953. 33p. diagrs., tab. (NACA RM E53F15)

ENGINEERING METHOD OF RAM-JET THRUST DETERMINATION BASED ON EXPERIMENTALLY OBTAINED COMBUSTOR PARAMETERS. H. Rudolph Dettwyler and Maxime A. Faget. August 1953. 44p. diagrs., tab. (NACA RM L53E21)

EFFECT OF INLET-AIR TEMPERATURE ON PERFORMANCE OF A 16-INCH RAM-JET COMBUSTOR. A. J. Cervenka, E. E. Dangle, and Robert Friedman. October 1953. 24p. diagrs., tab. (NACA RM E53I03)

EFFECT OF MECHANICALLY INDUCED SINUSOIDAL AIR-FLOW OSCILLATIONS ON OPERATION OF A RAM-JET ENGINE. E. E. Dangle, A. J. Cervenka, and Eugene Perchonok. June 1954. 24p. diagrs., tab. (NACA RM E54D01)

PERFORMANCE OF A 16-INCH RAM-JET ENGINE WITH A CAN-TYPE COMBUSTOR AT MACH NUMBERS OF 1.50 TO 2.16. Donald P. Hearth and Eugene Perchonok. August 1954. 30p. diagrs. (NACA RM E54G13)

FLIGHT AND PREFLIGHT TESTS OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND UTILIZING A SOLID-PROPELLANT GAS GENERATOR FOR FUEL EXPULSION. Walter A. Bartlett, Jr., and William K. Hagginbothom, Jr. April 1955. 35p. diagrs., photos. (NACA RM L55A24)

EXPERIMENTAL EVALUATION OF BORON-HYDROCARBON SLURRY IN A 16-INCH RAM-JET COMBUSTOR. William R. Kerslake, E. E. Dangle, and A. J. Cervenka. June 1955. 37p. diagrs., photos., tabs. (NACA RM E55C07)

PREFLIGHT AND FLIGHT-TEST INVESTIGATION OF A 50-PERCENT-MAGNESIUM 50-PERCENT JP-4 SLURRY FUEL IN A TWIN-ENGINE RAM-JET VEHICLE. Otto F. Trout, Jr., and Thomas L. Kennedy. May 1956. 27p. diagrs., photos. (NACA RM L56C06)

BASIC CONSIDERATIONS IN THE COMBUSTION OF HYDROCARBON FUELS WITH AIR. Propulsion Chemistry Division. Edited by Henry C. Barnett and Robert R. Hibbard. Chap. I: ATOMIZATION AND EVAPORATION OF LIQUID FUELS. Charles C. Graves and Donald W. Bahr. Chap. II: FLOW AND MIXING PROCESSES IN COMBUSTION CHAMBERS. Wilfred E. Scull and William R. Mickelsen. Chap. III: IGNITION AND FLAMMABILITY OF HYDROCARBON FUELS. Frank E. Belles and Clyde C. Swett. Chap. IV: LAMINAR FLAME PROPAGATION. Gordon L. Dugger, Dorothy M. Simon, and Melvin Gerstein. Chap. V: TURBULENT FLAMES. Melvin Gerstein and Gordon L. Dugger. Chap. VI: FLAME STABILIZATION. Gordon L. Dugger and Melvin Gerstein. Chap. VII: DIFFUSION FLAMES. Richard S. Brokaw and Melvin Gerstein. Chap. VIII: OSCILLATIONS IN COMBUSTORS. Perry L. Blackshear, Jr., and Warren D. Rayle. Chap. IX: SMOKE AND COKE FORMATION IN THE COMBUSTION OF HYDROCARBON-AIR MIXTURES. Rose L. Schalla and Robert R. Hibbard. 1957. xi, 259p. diagrs., photos., tabs. (NACA Rept. 1300)

RELATION OF TURBOJET AND RAMJET COMBUSTION EFFICIENCY TO SECOND-ORDER REACTION KINETICS AND FUNDAMENTAL FLAME SPEED. J. Howard Childs, Thaine W. Reynolds, and Charles C. Graves. 1957. ii, 13p. diagrs. (NACA Rept. 1334)

FLIGHT INVESTIGATION OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND HAVING A CONICAL SHOCK INLET DESIGNED FOR A MACH NUMBER OF 4.1. Walter A. Bartlett, Jr., and Charles F. Merlet. January 1957. 23p. diagrs., photos. (NACA RM L56I24a)

PRELIMINARY INVESTIGATION OF PROPANE COMBUSTION IN A 3-INCH-DIAMETER DUCT AT INLET-AIR TEMPERATURES OF 1400° TO 1600° F. Erwin A. Lezberg. July 1957. 19p. diagrs., photos., tab. (NACA TN 4028)

DROP-SIZE DISTRIBUTION FOR CROSSCURRENT BREAKUP OF LIQUID JETS IN AIRSTREAMS. Robert D. Ingebo and Hampton H. Foster. October 1957. 36p. diagrs., photos. tabs. (NACA TN 4087)

PRELIMINARY SURVEY OF PROPULSION USING CHEMICAL ENERGY STORED IN THE UPPER ATMOSPHERE. Lionel V. Baldwin and Perry L. Blackshear. Appendix D: HEAT TRANSFER AND FRICTION DRAG. James F. Schmidt. May 1958. 73p. diagrs., tabs. (NACA TN 4267)

EFFECT OF PRESSURE AND DUCT GEOMETRY ON BLUFF-BODY FLAME STABILIZATION. Andrew E. Potter, Jr., and Edgar L. Wong. September 1958. 31p. diagrs., tab. (NACA TN 4381)

AN ANALYSIS OF RAMJET ENGINES USING SUPERSONIC COMBUSTION. Richard J. Weber and John S. MacKay. September 1958. 49p. diagrs., tab. (NACA TN 4386)

(3.5.2.5) ROCKET ENGINES

PRELIMINARY INVESTIGATION OF A CHEMICAL STARTING TECHNIQUE FOR THE ACID GASOLINE ROCKET PROPELLANT SYSTEM. Glen Hennings and Gerald Morrell. January 1953. 23p. photo., diagrs., tab. (NACA RM E52K21)

INVESTIGATION OF LIQUID FLUORINE - LIQUID AMMONIA PROPELLANT COMBINATION IN A 100-POUND-THRUST ROCKET ENGINE. Edward A. Rothenberg and Howard W. Douglass. July 1953. 31p. diagrs., photos., tabs. (NACA RM E53E08)

PHOTOGRAPHIC STUDY OF ROTARY SCREAMING AND OTHER OSCILLATIONS IN A ROCKET ENGINE. Theodore Male, William R. Kerslake, and Adelbert O. Tischler. May 1954. 37p. diagrs., photos. (NACA RM E54A29)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-PERCENT-FLUORINE - 30-PERCENT-OXYGEN MIXTURE AS A ROCKET PROPELLANT. I - FROZEN COMPOSITION. Sanford Gordon and Vearl N. Huff. April 1956. 38p. diagrs., tabs. (NACA RM E56A13a)

A STUDY OF FUEL-NITRIC ACID REACTIVITY. Charles E. Feiler and Louis Baker, Jr. April 1956. 48p. diagrs., photo., tabs. (NACA RM E56A19)

EFFECT OF FUELS ON SCREAMING IN 200-POUND-THRUST LIQUID-OXYGEN - FUEL ROCKET ENGINE. Isaac Pass and Adelbert O. Tischler. June 1956. 25p. diagrs., photos., tab. (NACA RM E56C10)

INJECTION PRINCIPLES FOR LIQUID OXYGEN AND HEPTANE USING TWO-ELEMENT INJECTORS. Marcus F. Heidmann. June 1956. 30p. diagrs., photos., tab. (NACA RM E56D04)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-30 MIXTURE OF FLUORINE AND OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Sanford Gordon and Vearl N. Huff. October 1956. 49p. diagrs., tabs. (NACA RM E56F04)

EFFECTS OF VARIATIONS IN COMBUSTION-CHAMBER CONFIGURATION ON IGNITION DELAY IN A 50-POUND-THRUST ROCKET. Dezso J. Ladanyi. October 1956. 53p. diagrs., photos., tabs. (NACA RM E56F22)

A STUDY OF INJECTION PROCESSES FOR LIQUID OXYGEN AND GASEOUS HYDROGEN IN A 200-POUND-THRUST ROCKET ENGINE. Carmon M. Auble. January 1957. 32p. diagrs., photos. (NACA RM E56I25a)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; EXPERIMENTAL EFFECT OF FUEL TEMPERATURE ON LIQUID-OXYGEN - HEPTANE PERFORMANCE. M. F. Heidmann. July 1957. 21p. diagrs., tabs. (NACA RM E57E03)

INJECTION PRINCIPLES FOR LIQUID OXYGEN AND HEPTANE USING NINE-ELEMENT INJECTORS IN AN 1800-POUND-THRUST ROCKET ENGINE. Richard F. Neu. July 1957. 27p. diagrs., photos., tab. (NACA RM E57E13)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET ENGINE DESIGN; CALCULATIONS OF CHAMBER LENGTH TO VAPORIZE A SINGLE n-HEPTANE DROP. Richard J. Priem. July 1957. 41p. diagrs., tab. (NACA TN 3985)

SUMMARY OF NACA RESEARCH ON IGNITION LAG OF SELF-IGNITING FUEL - NITRIC ACID PROPELLANTS. Gerald Morrell. October 1957. 48p. diagrs., photos., tabs. (NACA RM E57G19)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; CALCULATIONS USING VARIOUS LOG-PROBABILITY DISTRIBUTIONS OF HEPTANE DROPS. Richard J. Priem. October 1957. 29p. diagrs., tab. (NACA TN 4098)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Kenneth S. Drellishak. November 1957. 62p. diagrs., tabs. (NACA RM E57G16a)

EFFECT OF FUEL-ORIFICE DIAMETER ON PERFORMANCE OF HEPTANE-OXYGEN ROCKET ENGINES. Richard J. Priem and Martin Hersch. February 1958. 20p. diagrs. (NACA RM E57I26)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING EQUILIBRIUM COMPOSITION. Sanford Gordon. February 1958. 69p. diagrs., tabs. (NACA RM E57K22)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET ENGINE DESIGN; RELATION BETWEEN PERCENTAGE OF PROPELLANT VAPORIZED AND ENGINE PERFORMANCE. Marcus F. Heidmann and Richard J. Priem. March 1958. 19p. diagrs. (NACA TN 4219)

DROP-SIZE DISTRIBUTIONS FOR IMPINGING-JET BREAKUP IN AIRSTREAMS SIMULATING THE VELOCITY CONDITIONS IN ROCKET COMBUSTORS. Robert D. Ingebo. March 1958. 23p. diagrs photos., tab. (NACA TN 4222)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA WITH LIQUID OXYGEN AS A ROCKET PROPELLANT. Sanford Gordon and Alan R. Glueck. May 1958. 84p. diagrs., tabs. (NACA RM E58A21)

THEORETICAL ROCKET PERFORMANCE OF LIQUID METHANE WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Michael E. Kastner. May 1958. 44p. diagrs., tabs. (NACA RM E58B20)

EFFECT OF FUEL DROP SIZE AND INJECTOR CONFIGURATION ON SCREAMING IN A 200-POUND-THRUST ROCKET ENGINE USING LIQUID OXYGEN AND HEPTANE. Charles E. Feiler. June 1958. 27p. diagrs., photos., tab. (NACA RM E58A20a)

SCREAMING TENDENCY OF THE GASEOUS-HYDROGEN - LIQUID-OXYGEN PROPELLANT COMBINATION. Louis Baker, Jr., and Fred W. Steffen. September 1958. 24p. diagrs., photos., tabs. (NACA RM E58E09)

COMBUSTOR PERFORMANCE WITH VARIOUS HYDROGEN-OXYGEN INJECTION METHODS IN A 200-POUND-THRUST ROCKET ENGINE. M. F. Heidmann and Louis Baker, Jr. September 1958. 45p. diagrs., photos., tab. (NACA RM E58E21)

PROPELLANT VAPORIZATION AS A CRITERION FOR ROCKET-ENGINE DESIGN; CALCULATIONS OF CHAMBER LENGTH TO VAPORIZE VARIOUS PROPELLANTS. Richard J. Priem. September 1958. 36p. diagrs., tab. (NACA TN 3883)

AN ANALYTICAL STUDY OF TURBULENT AND MOLECULAR MIXING IN ROCKET COMBUSTION. David A. Bittker. September 1958. 22p. diagrs. (NACA TN 4321)

A MACH 4 ROCKET-POWERED SUPERSONIC TUNNEL USING AMMONIA-OXYGEN AS WORKING FLUID. Robert W. Graham, Eleanor Costilow Guentert, and Vearl N. Huff. September 1958. 53p. diagrs., photos. (NACA TN 4325)

(3.6)
Compression and Compressors

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. III - DESIGN AND EXPERIMENTAL RESULTS FOR IMPELLER MODEL MFI-2A AND COMPARISON WITH IMPELLER MODEL MFI-1A. Joseph T. Hamrick, Walter M. Osborn, and William L. Beede. March 1953. 34p. diagrs., photo., tab. (NACA RM E52L22a)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. IV - EXPERIMENTAL RESULTS FOR IMPELLER MODELS MFI-1 AND MFI-2 WITH CHANGES IN BLADE HEIGHT. Joseph T. Hamrick, William L. Beede, and Joseph R. Withee, Jr. February 1954. 32p. diagrs., photos. (NACA RM E53L02)

PERFORMANCE OF MIXED-FLOW IMPELLER, MODEL MFI-1B, WITH DIFFUSER VANES AT EQUIVALENT IMPELLER SPEEDS FROM 1100 TO 1700 FEET PER SECOND. Walter M. Osborn. June 1954. 16p. diagrs., photo. (NACA RM E54D23)

THROAT-AREA DETERMINATION FOR A CASCADE OF DOUBLE-CIRCULAR-ARC BLADES. Linwood C. Wright and Richard Schwind. November 1955. 20p. diagrs. (NACA RM E55H25a)

PRELIMINARY ATTEMPTS AT ISOTHERMAL COMPRESSION OF A SUPERSONIC AIR STREAM. E. Perchonok and F. Wilcox. January 1956. 33p. diagrs., photos., tab. (NACA RM E55I29a)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. VIII - COMPARISON OF EXPERIMENTAL RESULTS FOR THREE IMPELLERS WITH SHROUD REDESIGNED BY RAPID APPROXIMATE METHOD. Walter M. Osborn, Kenneth J. Smith, and Joseph T. Hamrick. February 1957. 32p. diagrs., photos. (NACA RM E56L07)

(3.6.1)
FLOW THEORY AND EXPERIMENT

EXPERIMENTAL INVESTIGATION OF A 16-INCH IMPULSE-TYPE SUPERSONIC-COMPRESSOR ROTOR. Guy N. Ullman, Melvin J. Hartmann, and Edward R. Tysl. October 1951. 29p. diagrs., photos. (NACA RM E51G19)

INVESTIGATION OF A 24-INCH SHOCK-IN-ROTOR TYPE SUPERSONIC COMPRESSOR DESIGNED FOR SIMPLE RADIAL EQUILIBRIUM BEHIND NORMAL SHOCK. Harold Lown and Melvin J. Hartmann. December 1951. 25p. diagrs., photo. (NACA RM E51H08)

PERFORMANCE OF A SWEPT LEADING EDGE ROTOR OF THE SUPERSONIC TYPE WITH MIXED FLOW. Arthur W. Goldstein and Ralph L. Schacht. January 1953. 34p. diagrs., photo., tab. (NACA RM E52K03)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. III - DESIGN AND EXPERIMENTAL RESULTS FOR IMPELLER MODEL MFI-2A AND COMPARISON WITH IMPELLER MODEL MFI-1A. Joseph T. Hamrick, Walter M. Osborn, and William L. Beede. March 1953. 34p. diagrs., photo., tab. (NACA RM E52L22a)

DESIGN PROCEDURE AND LIMITED TEST RESULTS FOR A HIGH SOLIDITY, 12-INCH TRANSONIC IMPELLER WITH AXIAL DISCHARGE. Linwood C. Wright and Karl Kovach. April 1953. 37p. photos., diagrs., tab. (NACA RM E53B09)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. III - INVESTIGATION OF ROTATING STALL, BLADE VIBRATION, AND SURGE AT LOW AND INTERMEDIATE COMPRESSOR SPEEDS. Merle C. Huppert, Eleanor L. Costilow, and Ray E. Budinger. May 1953. 47p. diagrs., photos., tabs. (NACA RM E53C19)

DIFFUSION FACTOR FOR ESTIMATING LOSSES AND LIMITING BLADE LOADINGS IN AXIAL-FLOW-COMPRESSOR BLADE ELEMENTS. Seymour Lieblein, Francis C. Schwenk, and Robert L. Broderick. June 1953. 43p. diagrs., tabs. (NACA RM E53D01)

INVESTIGATION OF 16-INCH IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH ROTOR TURNING PAST AXIAL DIRECTION. John J. Jacklitch, Jr., and Melvin J. Hartmann. July 1953. 29p. diagrs., photos. (NACA RM E53D13)

INVESTIGATION OF A SUPERSONIC-COMPRESSOR ROTOR WITH TURNING TO AXIAL DIRECTION. I - ROTOR DESIGN AND PERFORMANCE. Edward R. Tysl, John F. Klapproth, and Melvin J. Hartmann. August 1953. 36p. diagrs., photos. (NACA RM E53F23)

UTILIZATION OF EXTERNAL-COMPRESSION DIFFUSION PRINCIPLE IN DESIGN OF SHOCK-IN-ROTOR SUPERSONIC COMPRESSOR BLADING. John W. R. Creagh and John F. Klapproth. September 1953. 37p. diagrs., photos., tab. (NACA RM E53F18)

EXPERIMENTAL INVESTIGATION OF AN AXIAL-FLOW COMPRESSOR INLET STAGE OPERATING AT TRANSONIC RELATIVE INLET MACH NUMBERS. III - BLADE-ROW PERFORMANCE OF STAGE WITH TRANSONIC ROTOR AND SUBSONIC STATOR AT CORRECTED TIP SPEEDS OF 800 AND 1000 FEET PER SECOND. Francis C. Schwenk, Seymour Lieblein, and George W. Lewis, Jr. September 1953. 69p. diagrs., photos., tabs. (NACA RM E53G17)

PERFORMANCE OF A SUPERSONIC MIXED-FLOW ROTOR WITH A SWEPT LEADING EDGE AND 0.52 INLET RADIUS RATIO. Arthur W. Goldstein and Ralph L. Schacht. November 1953. 34p. diagrs., photos., tab. (NACA RM E53H27)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. IV - EXPERIMENTAL RESULTS FOR IMPELLER MODELS MFI-1 AND MFI-2 WITH CHANGES IN BLADE HEIGHT. Joseph T. Hamrick, William L. Beede, and Joseph R. Withee, Jr. February 1954. 32p. diagrs., photos. (NACA RM E53L02)

INVESTIGATION OF A SUPERSONIC-COMPRESSOR ROTOR WITH TURNING TO AXIAL DIRECTION. II - ROTOR COMPONENT OFF-DESIGN AND STAGE PERFORMANCE. Melvin J. Hartmann and Edward R. Tysl. March 1954. 31p. diagrs., photos. (NACA RM E53L24)

REVIEW OF HIGH-PERFORMANCE AXIAL-FLOW-COMPRESSOR BLADE-ELEMENT THEORY. Seymour Lieblein. April 1954. 34p. diagrs. (NACA RM E53L22)

APPLICATION OF RADIAL-EQUILIBRIUM CONDITION TO AXIAL-FLOW TURBOMACHINE DESIGN INCLUDING CONSIDERATION OF CHANGE OF ENTROPY WITH RADIUS DOWNSTREAM OF BLADE ROW. James E. Hatch, Charles C. Giamati, and Robert J. Jackson. April 1954. 52p. diagrs. (NACA RM E54A20)

PERFORMANCE OF MIXED-FLOW IMPELLER, MODEL MFI-1B, WITH DIFFUSER VANES AT EQUIVALENT IMPELLER SPEEDS FROM 1100 TO 1700 FEET PER SECOND. Walter M. Osborn. June 1954. 16p. diagrs., photo. (NACA RM E54D23)

INVESTIGATION OF SUPERSONIC-COMPRESSOR ROTORS DESIGNED WITH EXTERNAL COMPRESSION. Lawrence J. Jahnsen and Melvin J. Hartmann. September 1954. 41p. diagrs., photos. (NACA RM E54G27a)

INVESTIGATION OF COMPRESSIBLE FLOW MIXING LOSSES OBTAINED DOWNSTREAM OF A BLADE ROW. Warner L. Stewart. December 1954. 21p. diagrs. (NACA RM E54I20)

DESIGN AND PERFORMANCE OF A 1400-FOOT-PER-SECOND-TIP-SPEED SUPERSONIC COMPRESSOR ROTOR. John F. Klapproth, John J. Jacklitch, Jr., and Edward R. Tysl. April 1955. 48p. diagrs., photo., tab. (NACA RM E55A27)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. V - DESIGN PROCEDURE AND PERFORMANCE RESULTS FOR TWO VANED DIFFUSERS TESTED WITH IMPELLER MODEL MFI-1B. Joseph T. Hamrick and Walter M. Osborn. July 1955. 32p. diagrs., photos. (NACA RM E55E13)

INVESTIGATION OF IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH HUB-TIP RATIO OF 0.6 AND TURNING TO AXIAL DIRECTION. II - STAGE PERFORMANCE WITH THREE DIFFERENT SETS OF STATORS. Ward W. Wilcox. August 1955. 49p. diagrs., photos., tab. (NACA RM E55F28)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. VI - PERFORMANCE OF PARABOLIC-BLADED IMPELLER WITH SHROUD REDESIGNED BY RAPID APPROXIMATE METHOD. Kenneth J. Smith and Walter M. Osborn. September 1955. 22p. diagrs., photo., tab. (NACA RM E55F23)

THROAT-AREA DETERMINATION FOR A CASCADE OF DOUBLE-CIRCULAR-ARC BLADES. Linwood C. Wright and Richard Schwind. November 1955. 20p. diagrs. (NACA RM E55H25a)

PERFORMANCE OF A HIGH-SOLIDITY HIGH-PRESSURE-RATIO TRANSONIC ROTOR. Harvey E. Neumann. November 1955. 29p. diagrs., photo. (NACA RM E55I19)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. VII - EXPERIMENTAL RESULTS FOR PARABOLIC-BLADED IMPELLER WITH ALTERNATE BLADES CUT BACK TO FORM SPLITTER VANES. Walter M. Osborn. March 1956. 13p. diagrs., photo. (NACA RM E55L15)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME I. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 406p. diagrs., photos., tab. (NACA RM E56B03)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME II. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. x, 275p. diagrs., tabs. (NACA RM E56B03a)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME III. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 364p. diagrs., photos., tabs. (NACA RM E56B03b)

EFFECT OF FLUID-SYSTEM PARAMETERS ON STARTING FLOW IN A LIQUID ROCKET. Richard P. Krebs. September 1957. 38p. diagrs., tab. (NACA TN 4034)

LOW-SPEED CASCADE INVESTIGATION OF COMPRESSOR BLADES HAVING LOADED LEADING EDGES. James C. Emery. January 1958. 76p. diagrs., photo., tabs. (NACA TN 4178. Supersedes RM L55J05)

THEORETICAL INVESTIGATION OF SUBSONIC OSCILLATORY BLADE-ROW AERODYNAMICS. Frank Lane and Manfred Friedman, New York University. February 1958. 64p. diagrs., tabs. (NACA TN 4136)

ELLIPTIC FUNCTIONS AND INTEGRALS WITH REAL MODULUS IN FLUID MECHANICS. (Les Fonctions et Integrales Elliptiques a Module Réel en Mecanique des Fluides). Robert Legendre. June 1958. 113p. diagrs. (NACA TM 1435. Translation of Office National d'Etudes et de Recherches Aéronautiques, Publication 71, 1954)

(3.6.1.1) AXIAL FLOW

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL- AND CENTRIFUGAL-COMPRESSOR TURBOJET ENGINES BY INJECTION OF WATER AND ALCOHOL IN COMBUSTION CHAMBERS. David S. Gabriel, Harry W. Dowman, and William L. Jones. April 13, 1950. 43p. diagrs., photo. (NACA RM E9K29)

EXPERIMENTAL INVESTIGATION OF A 16-INCH IMPULSE-TYPE SUPERSONIC-COMPRESSOR ROTOR. Guy N. Ullman, Melvin J. Hartmann, and Edward R. Tysl. October 1951. 29p. diagrs., photos. (NACA RM E51G19)

INVESTIGATION OF A 24-INCH SHOCK-IN-ROTOR TYPE SUPERSONIC COMPRESSOR DESIGNED FOR SIMPLE RADIAL EQUILIBRIUM BEHIND NORMAL SHOCK. Harold Lown and Melvin J. Hartmann. December 1951. 25p. diagrs., photo. (NACA RM E51H08)

EXPERIMENTAL INVESTIGATION OF AN AXIAL-FLOW COMPRESSOR INLET STAGE OPERATING AT TRANSONIC RELATIVE INLET MACH NUMBERS. I - OVER-ALL PERFORMANCE OF STAGE WITH TRANSONIC ROTOR AND SUBSONIC STATORS UP TO ROTOR RELATIVE INLET MACH NUMBER OF 1.1. Seymour Lieblein, George W. Lewis, Jr., and Donald M. Sandercock. March 1952. 21p. diagrs., photos. (NACA RM E52A24)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. I - AERODYNAMIC DESIGN. Irving A. Johnsen. April 1952. 41p. diagrs., tabs. (NACA RM E52B18)

PERFORMANCE OF AN IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH STATORS. John F. Klapproth, Guy N. Ullman, and Edward R. Tysl. April 1952. 22p. diagrs., photo. (NACA RM E52B22)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. II - PRELIMINARY ANALYSIS OF OVER-ALL PERFORMANCE. Ray E. Budinger and Arthur R. Thomson. June 1952. 23p. diagrs., photos. (NACA RM E52C04)

EXPERIMENTAL INVESTIGATION OF AXIAL-FLOW COMPRESSOR INLET STAGE OPERATING AT TRANSONIC RELATIVE INLET MACH NUMBERS. II - BLADE-COORDINATE DATA. George W. Lewis, Jr. June 1952. 9p. diagrs. (NACA RM E52C27)

EXPERIMENTAL INVESTIGATION OF AXIAL-FLOW COMPRESSOR STATOR BLADES DESIGNED TO OBTAIN HIGH TURNING ANGLES BY MEANS OF BOUNDARY-LAYER SUCTION. G. R. Costello, R. L. Cummings, and G. K. Serovy. June 1952. 22p. diagrs., photos., tab. (NACA RM E52D18)

COMPONENT AND OVER-ALL PERFORMANCE EVALUATION OF AN AXIAL-FLOW TURBOJET ENGINE OVER A RANGE OF ENGINE-INLET REYNOLDS NUMBERS. Curtis L. Walker, S. C. Huntley, and W. M. Braithwaite. July 1952. 42p. diagrs., tabs. (NACA RM E52B08)

EFFECTS ON THE WEIGHT-FLOW RANGE AND EFFICIENCY OF A TYPICAL AXIAL-FLOW COMPRESSOR INLET STAGE THAT RESULT FROM THE USE OF A DECREASED BLADE CAMBER OR DECREASED GUIDE-VANE TURNING. Robert J. Jackson. September 1952. 41p. diagrs., photos. (NACA RM E52G02)

DESIGN PROCEDURE AND LIMITED TEST RESULTS FOR A HIGH SOLIDITY, 12-INCH TRANSONIC IMPELLER WITH AXIAL DISCHARGE. Linwood C. Wright and Karl Kovach. April 1953. 37p. photos., diagrs., tab. (NACA RM E53B09)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. IV - INDIVIDUAL STAGE PERFORMANCE CHARACTERISTICS. Ray E. Budinger and George K. Serovy. April 1953. 37p. diagrs., photo. (NACA RM E53C11)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. III - INVESTIGATION OF ROTATING STALL, BLADE VIBRATION, AND SURGE AT LOW AND INTERMEDIATE COMPRESSOR SPEEDS. Merle C. Huppert, Eleanor L. Costilow, and Ray E. Budinger. May 1953. 47p. diagrs., photos., tabs. (NACA RM E53C19)

DIFFUSION FACTOR FOR ESTIMATING LOSSES AND LIMITING BLADE LOADINGS IN AXIAL-FLOW-COMPRESSOR BLADE ELEMENTS. Seymour Lieblein, Francis C. Schwenk, and Robert L. Broderick. June 1953. 43p. diagrs., tabs. (NACA RM E53D01)

INVESTIGATION OF 16-INCH IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH ROTOR TURNING PAST AXIAL DIRECTION. John J. Jacklitch, Jr., and Melvin J. Hartmann. July 1953. 29p. diagrs., photos. (NACA RM E53D13)

INVESTIGATION OF AN AXIAL-FLOW-COMPRESSOR ROTOR WITH CIRCULAR-ARC BLADES OPERATING UP TO A ROTOR-INLET RELATIVE MACH NUMBER OF 1.22. William H. Robbins and Frederick W. Glaser. July 1953. 63p. diagrs., photos., tabs. (NACA RM E53D24)

INVESTIGATION OF A SUPERSONIC-COMPRESSOR ROTOR WITH TURNING TO AXIAL DIRECTION. I - ROTOR DESIGN AND PERFORMANCE. Edward R. Tysl, John F. Klapproth, and Melvin J. Hartmann. August 1953. 36p. diagrs., photos. (NACA RM E53F23)

UTILIZATION OF EXTERNAL-COMPRESSION DIFFUSION PRINCIPLE IN DESIGN OF SHOCK-IN-ROTOR SUPERSONIC COMPRESSOR BLADING. John W. R. Creagh and John F. Klapproth. September 1953. 37p. diagrs., photos., tab. (NACA RM E53F18)

EXPERIMENTAL INVESTIGATION OF AN AXIAL-FLOW COMPRESSOR INLET STAGE OPERATING AT TRANSONIC RELATIVE INLET MACH NUMBERS. III - BLADE-ROW PERFORMANCE OF STAGE WITH TRANSONIC ROTOR AND SUBSONIC STATOR AT CORRECTED TIP SPEEDS OF 800 AND 1000 FEET PER SECOND. Francis C. Schwenk, Seymour Lieblein, and George W. Lewis, Jr. September 1953. 69p. diagrs., photos., tabs. (NACA RM E53G17)

INVESTIGATION OF AN AXIAL-FLOW COMPRESSOR ROTOR HAVING NACA HIGH-SPEED BLADE SECTIONS (A_2I_{8b} SERIES) AT MEAN RADIUS RELATIVE INLET MACH NUMBERS UP TO 1.13. Melvyn Savage, John R. Erwin, and Robert P. Whitley. November 1953. 43p. diagrs., photos., tab. (NACA RM L53G02)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. I - AERODYNAMIC DESIGN. Charles H. Voit. December 1953. 36p. diagrs., tabs. (NACA RM E53I24)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. II - PRELIMINARY ANALYSIS OF OVER-ALL PERFORMANCE. Richard P. Geye, Ray E. Budinger, and Charles H. Voit. December 1953. 23p. diagrs., photos. (NACA RM E53J06)

EXPERIMENTAL INVESTIGATION OF AN AXIAL-FLOW SUPERSONIC COMPRESSOR HAVING ROUNDED LEADING-EDGE BLADES WITH AN 8-PERCENT MEAN THICKNESS-CHORD RATIO. Theodore J. Goldberg, Emanuel Boxer, and Peter T. Bernot. December 1953. 43p. diagrs., photos., tab. (NACA RM L53G16)

ANALYSIS OF PERFORMANCE OF FOUR SYMMETRICAL-DIAGRAM-TYPE SUBSONIC INLET-STAGE AXIAL-FLOW COMPRESSORS. Robert J. Jackson. January 1954. 72p. diagrs., photos. (NACA RM E53K03)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. V - EFFECT OF REDUCING INLET-GUIDE-VANE TURNING ON OVER-ALL AND INLET-STAGE PERFORMANCE. Ray E. Budinger and George K. Serovy. March 1954. 37p. diagrs., photo. (NACA RM E53H10)

INVESTIGATION OF A SUPERSONIC-COMPRESSOR ROTOR WITH TURNING TO AXIAL DIRECTION. II - ROTOR COMPONENT OFF-DESIGN AND STAGE PERFORMANCE. Melvin J. Hartmann and Edward R. Tysl. March 1954. 31p. diagrs., photos. (NACA RM E53L24)

REVIEW OF HIGH-PERFORMANCE AXIAL-FLOW-COMPRESSOR BLADE-ELEMENT THEORY. Seymour Lieblein. April 1954. 34p. diagrs. (NACA RM E53L22)

GENERAL CONSIDERATIONS OF MACH NUMBER EFFECTS ON COMPRESSOR-BLADE DESIGN. John F. Klapproth. April 1954. 24p. diagrs., photos. (NACA RM E53L23a)

EXPERIMENTAL INVESTIGATION OF ROTATING STALL AND BLADE VIBRATION IN THE AXIAL-FLOW COMPRESSOR OF A TURBOJET ENGINE. Merle C. Huppert, Howard F. Calvert, and André J. Meyer. April 1954. 24p. diagrs., tabs. (NACA RM E54A08)

APPLICATION OF RADIAL-EQUILIBRIUM CONDITION TO AXIAL-FLOW TURBOMACHINE DESIGN INCLUDING CONSIDERATION OF CHANGE OF ENTROPY WITH RADIUS DOWNSTREAM OF BLADE ROW. James E. Hatch, Charles C. Giamati, and Robert J. Jackson. April 1954. 52p. diagrs. (NACA RM E54A20)

INVESTIGATION OF IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH HUB-TIP RATIO OF 0.6 AND TURNING TO AXIAL DIRECTION. I - PERFORMANCE OF ROTOR ALONE. Ward W. Wilcox. May 1954. 41p. diagrs., photos., tab. (NACA RM E54B25)

PERFORMANCE OF A SUPERSONIC ROTOR HAVING HIGH MASS FLOW. Ralph L. Schacht, Arthur W. Goldstein, and Harvey E. Neumann. July 1954. 34p. diagrs., photo., tab. (NACA RM E54D22)

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. VI - PERFORMANCE EVALUATION AND FLOW DISTRIBUTIONS IN THE FIRST, FIFTH, AND TENTH STAGES. Ray E. Budinger. August 1954. 42p. diagrs., photo., tabs. (NACA RM E54F28)

INVESTIGATION OF SUPERSONIC-COMPRESSOR ROTORS DESIGNED WITH EXTERNAL COMPRESSION. Lawrence J. Jahnsen and Melvin J. Hartmann. September 1954. 41p. diagrs., photos. (NACA RM E54G27a)

INVESTIGATION OF THREE HIGHLY LOADED SUBSONIC-INLET-STAGE AXIAL-FLOW COMPRESSORS EMPLOYING VARYING RADIAL GRADIENTS OF ENERGY ADDITION. Raymond M. Standahar. October 1954. 33p. diagrs., photos., tabs. (NACA RM E54G20)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. III - INDIVIDUAL STAGE PERFORMANCE CHARACTERISTICS. Charles H. Voit and Richard P. Geye. November 1954. 25p. diagrs., photo. (NACA RM E54H17)

EXPERIMENTAL INVESTIGATION OF CONTROL SIGNALS AND THE NATURE OF STALL AND SURGE BEHAVIOR IN A TURBOJET ENGINE. G. J. Delio and P. M. Stiglic. December 1954. 62p. diagrs. (NACA RM E54I15)

PRELIMINARY INVESTIGATION OF THE STRENGTH AND ENDURANCE OF PLASTIC-IMPREGNATED FIBERGLASS COMPRESSOR BLADES. Donald F. Johnson and André J. Meyer, Jr. January 1955. 21p. diagrs., photos. (NACA RM E54I27a)

EXPERIMENTAL INVESTIGATION OF AN AXIAL-FLOW SUPERSONIC COMPRESSOR HAVING SHARP LEADING-EDGE BLADES WITH AN 8-PERCENT MEAN THICKNESS-CHORD RATIO AND OF THE EFFECT OF A LEADING-EDGE RADIUS. Theodore J. Goldberg. February 1955. 33p. diagrs., photo. (NACA RM L54K16)

DESIGN AND PERFORMANCE OF A 1400-FOOT-PER-SECOND-TIP-SPEED SUPERSONIC COMPRESSOR ROTOR. John F. Klapproth, John J. Jacklitch, Jr., and Edward R. Tysl. April 1955. 48p. diagrs., photo., tab. (NACA RM E55A27)

ANALYSIS OF AERODYNAMIC BLADE-LOADING-LIMIT PARAMETERS FOR NACA 65-$(C_{i_0}A_{10})10$ COMPRESSOR-BLADE SECTIONS AT LOW SPEEDS. Melvyn Savage. April 1955. 32p. diagrs. (NACA RM L54L02a)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. V - PRELIMINARY ANALYSIS OF OVER-ALL PERFORMANCE OF MODIFIED COMPRESSOR. Raymond M. Standahar and Richard P. Geye. May 1955. 20p. diagrs., photos. (NACA RM E55A03)

STEADY-STATE AND SURGE CHARACTERISTICS OF A COMPRESSOR EQUIPPED WITH VARIABLE INLET GUIDE VANES OPERATING IN A TURBOJET ENGINE. Lewis E. Wallner and Robert J. Lubick. June 1955. 54p. diagrs., photos. (NACA RM E54I28)

COMPRESSOR-BLADE VIBRATION AND PERFORMANCE IN A J47-23 TURBOJET ENGINE UNDER CONDITIONS OF ROTATING STALL. Morgan P. Hanson, Donald F. Johnson, and André J. Meyer, Jr. June 1955. 18p. diagrs., tab. (NACA RM E54L20a)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. IV - MODIFICATION OF AERODYNAMIC DESIGN AND PREDICTION OF PERFORMANCE. Richard P. Geye and Charles H. Voit. June 1955. 22p. diagrs., tab. (NACA RM E55B28)

INVESTIGATION OF IMPULSE-TYPE SUPERSONIC COMPRESSOR WITH HUB-TIP RATIO OF 0.6 AND TURNING TO AXIAL DIRECTION. II - STAGE PERFORMANCE WITH THREE DIFFERENT SETS OF STATORS. Ward W. Wilcox. August 1955. 49p. diagrs., photos., tab. (NACA RM E55F28)

EFFECTS OF INLET-AIR-FLOW DISTORTION ON STEADY-STATE ALTITUDE PERFORMANCE OF AN AXIAL-FLOW TURBOJET ENGINE. William Conrad, Morgan P. Hanson, and John E. McAulay. September 1955. 47p. diagrs., photo (NACA RM E55A04)

HIGH-SPEED CASCADE TESTS OF A BLADE SECTION DESIGNED FOR TYPICAL HUB CONDITIONS OF HIGH-FLOW TRANSONIC ROTORS. Melvyn Savage, A. Richard Felix, and James C. Emery. September 1955. 48p. diagrs., photos., tab. (NACA RM L55F07)

THROAT-AREA DETERMINATION FOR A CASCADE OF DOUBLE-CIRCULAR-ARC BLADES. Linwood C. Wright and Richard Schwind. November 1955. 20p. diagrs. (NACA RM E55H25a)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. VI - OVER-ALL PERFORMANCE, ROTATING STALL, AND BLADE VIBRATION AT LOW AND INTERMEDIATE COMPRESSOR SPEEDS. Raymond M. Standahar, Morgan P. Hanson, and Richard P. Geye. November 1955. 21p. diagrs. (NACA RM E55I13)

USE OF SHADOWGRAPH TECHNIQUE IN THE ANALYSIS OF THE PERFORMANCE OF TWO SUPERSONIC AXIAL-FLOW COMPRESSOR ROTORS OPERATING OVER A MEAN RADIUS RELATIVE INLET MACH NUMBER RANGE OF 0.85 TO 1.7. Theodore J. Goldberg and James R. Sterrett. April 1956. 48p. diagrs., photos. (NACA RM L56A05)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME I. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 406p. diagrs., photos., tab. (NACA RM E56B03)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME II. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. x, 275p. diagrs., tabs. (NACA RM E56B03a)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME III. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 364p. diagrs., photos., tabs. (NACA RM E56B03b)

EFFECT OF DESIGN OVER-ALL COMPRESSOR PRESSURE RATIO DIVISION ON ACCELERATION CHARACTERISTICS OF THREE HYPOTHETICAL TWO-SPOOL TURBOJET ENGINES. Richard E. Filippi and James F. Dugan, Jr. August 1956. 26p. diagrs. (NACA RM E56D13)

ANALYSIS OF TURBOMACHINE VISCOUS LOSSES AFFECTED BY CHANGES IN BLADE GEOMETRY. James W. Miser, Warner L. Stewart, and Warren J. Whitney. October 1956. 50p. diagrs., tab. (NACA RM E56F21)

ANALYSIS OF EXPERIMENTAL LOW-SPEED LOSS AND STALL CHARACTERISTICS OF TWO-DIMENSIONAL COMPRESSOR BLADE CASCADES. Seymour Lieblein. March 1957. 64p. diagrs., tabs. (NACA RM E57A28)

INVESTIGATION OF THE EFFECT OF VELOCITY DIAGRAM ON INLET TOTAL-PRESSURE DISTORTIONS THROUGH SINGLE-STAGE SUBSONIC AXIAL-FLOW COMPRESSORS. George C. Ashby, Jr. April 1957. 21p. diagrs., photo. (NACA RM L57A03)

LOW-SPEED CASCADE INVESTIGATION OF THIN LOW-CAMBER NACA 65-SERIES BLADE SECTIONS AT HIGH INLET ANGLES. James C. Emery. June 1957. 93p. diagrs., tab. (NACA RM L57E03)

EFFECT OF SWEEP ON PERFORMANCE OF COMPRESSOR BLADE SECTIONS AS INDICATED BY SWEPT-BLADE ROTOR, UNSWEPT-BLADE ROTOR, AND CASCADE TESTS. William R. Godwin. July 1957. 43p. diagrs. (NACA TN 4062)

DETERMINATION OF SURGE AND STALL LIMITS OF AN AXIAL-FLOW TURBOJET ENGINE FOR CONTROL APPLICATIONS. Ross D. Schmidt, George Vasu, and Edward W. McGraw. September 1957. 29p. diagrs., tab. (NACA TN 3585. Supersedes RM E53B10)

NACA 65-SERIES COMPRESSOR ROTOR PERFORMANCE WITH VARYING ANNULUS-AREA RATIO, SOLIDITY, BLADE ANGLE, AND REYNOLDS NUMBER AND COMPARISON WITH CASCADE RESULTS. Wallace M. Schulze, John R. Erwin, and George C. Ashby, Jr. October 1957. 62p. diagrs., photos., tab. (NACA TN 4130. Supersedes RM L52L17)

COMPARISON OF PERFORMANCE OF TWO AERODYNAMICALLY SIMILAR 14-INCH-DIAMETER SINGLE-STAGE COMPRESSOR ROTORS OF DIFFERENT CHORD LENGTH. Marvin I. Kussoy and Daniel Bachkin. February 1958. 39p. diagrs., photos., tabs. (NACA RM E57I03)

STALL PROPAGATION IN A CASCADE OF AIRFOILS. Anthony R. Kriebel, Barry S. Seidel, and Richard G. Schwind, Massachusetts Institute of Technology. June 1958. 122p. diagrs., photos., tabs. (NACA TN 4134)

EXPERIMENTAL INVESTIGATION OF AN IMPULSE-TYPE SUPERSONIC COMPRESSOR ROTOR HAVING A TURNING OF 73° AT THE MEAN RADIUS. James R. Sterrett. June 1958. 35p. diagrs., photos., tabs. (NACA TN 4252)

DESIGN AND TESTS OF A SIX-STAGE AXIAL-FLOW COMPRESSOR HAVING A TIP SPEED OF 550 FEET PER SECOND AND A FLAT OPERATING CHARACTERISTIC AT CONSTANT SPEED. Willard R. Westphal and John W. Maynard, Jr. June 1958. 57p. diagrs., photos., tabs. (NACA TN 4253)

ANALYTICAL RELATION FOR WAKE MOMENTUM THICKNESS AND DIFFUSION RATIO FOR LOW-SPEED COMPRESSOR CASCADE BLADES. Seymour Lieblein. August 1958. 31p. diagrs. (NACA TN 4318)

PERFORMANCE AT LOW SPEEDS OF COMPRESSOR ROTORS HAVING LOW-CAMBERED NACA 65-SERIES BLADES WITH HIGH INLET ANGLES AND LOW SOLIDITIES. James C. Emery and Paul W. Howard. August 1958. 28p. diagrs. (NACA TN 4344)

APPROXIMATE SOLUTIONS OF A CLASS OF SIMILARITY EQUATIONS FOR THREE-DIMENSIONAL, LAMINAR, INCOMPRESSIBLE BOUNDARY-LAYER FLOWS. Arthur G. Hansen and Howard Z. Herzig. September 1958. 26p. diagrs. (NACA TN 4375)

(3.6.1.2) RADIAL FLOW

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL- AND CENTRIFUGAL-COMPRESSOR TURBOJET ENGINES BY INJECTION OF WATER AND ALCOHOL IN COMBUSTION CHAMBERS. David S. Gabriel, Harry W. Dowman, and William L. Jones. April 13, 1950. 43p. diagrs., photo. (NACA RM E9K29)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. VIII - COMPARISON OF EXPERIMENTAL RESULTS FOR THREE IMPELLERS WITH SHROUD REDESIGNED BY RAPID APPROXIMATE METHOD. Walter M. Osborn, Kenneth J. Smith, and Joseph T. Hamrick. February 1957. 32p. diagrs., photos. (NACA RM E56L07)

(3.6.1.3) MIXED FLOW

DESIGN AND PERFORMANCE OF AN EXPERIMENTAL AXIAL-DISCHARGE MIXED-FLOW COMPRESSOR. III - OVER-ALL PERFORMANCE OF IMPELLER AND SUPERSONIC-DIFFUSER COMBINATION. Ward W. Wilcox and William H. Robbins. April 30, 1951. 26p. diagrs., photo. (NACA RM E51A02)

PERFORMANCE OF A SWEPT LEADING EDGE ROTOR OF THE SUPERSONIC TYPE WITH MIXED FLOW. Arthur W. Goldstein and Ralph L. Schacht. January 1953. 34p. diagrs., photo., tab. (NACA RM E52K03)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. III - DESIGN AND EXPERIMENTAL RESULTS FOR IMPELLER MODEL MFI-2A AND COMPARISON WITH IMPELLER MODEL MFI-1A. Joseph T. Hamrick, Walter M. Osborn, and William L. Beede. March 1953. 34p. diagrs., photo., tab. (NACA RM E52L22a)

PERFORMANCE OF A SUPERSONIC MIXED-FLOW ROTOR WITH A SWEPT LEADING EDGE AND 0.52 INLET RADIUS RATIO. Arthur W. Goldstein and Ralph L. Schacht. November 1953. 34p. diagrs., photos., tab. (NACA RM E53H27)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. IV - EXPERIMENTAL RESULTS FOR IMPELLER MODELS MFI-1 AND MFI-2 WITH CHANGES IN BLADE HEIGHT. Joseph T. Hamrick, William L. Beede, and Joseph R. Withee, Jr. February 1954. 32p. diagrs., photos. (NACA RM E53L02)

PERFORMANCE OF MIXED-FLOW IMPELLER, MODEL MFI-1B, WITH DIFFUSER VANES AT EQUIVALENT IMPELLER SPEEDS FROM 1100 TO 1700 FEET PER SECOND. Walter M. Osborn. June 1954. 16p. diagrs., photo. (NACA RM E54D23)

PERFORMANCE OF A SUPERSONIC ROTOR HAVING HIGH MASS FLOW. Ralph L. Schacht, Arthur W. Goldstein, and Harvey E. Neumann. July 1954. 34p. diagrs., photo., tab. (NACA RM E54D22)

PERFORMANCE OF A SUPERSONIC COMPRESSOR WITH SWEPT AND TILTED DIFFUSER BLADES. Arthur W. Goldstein and Ralph L. Schacht. March 1955. 32p. diagrs., photo. (NACA RM E54L29)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. V - DESIGN PROCEDURE AND PERFORMANCE RESULTS FOR TWO VANED DIFFUSERS TESTED WITH IMPELLER MODEL MFI-1B. Joseph T. Hamrick and Walter M. Osborn. July 1955. 32p. diagrs., photos. (NACA RM E55E13)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. VI - PERFORMANCE OF PARABOLIC-BLADED IMPELLER WITH SHROUD REDESIGNED BY RAPID APPROXIMATE METHOD. Kenneth J. Smith and Walter M. Osborn. September 1955. 22p. diagrs., photo., tab. (NACA RM E55F23)

DESIGN AND TEST OF MIXED-FLOW IMPELLERS. VII - EXPERIMENTAL RESULTS FOR PARABOLIC-BLADED IMPELLER WITH ALTERNATE BLADES CUT BACK TO FORM SPLITTER VANES. Walter M. Osborn. March 1956. 13p. diagrs., photo. (NACA RM E55L15)

(3.6.2) STRESS AND VIBRATION

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. III - INVESTIGATION OF ROTATING STALL, BLADE VIBRATION, AND SURGE AT LOW AND INTERMEDIATE COMPRESSOR SPEEDS. Merle C. Huppert, Eleanor L. Costilow, and Ray E. Budinger. May 1953. 47p. diagrs., photos., tabs. (NACA RM E53C19)

EXPERIMENTAL INVESTIGATION OF ROTATING STALL AND BLADE VIBRATION IN THE AXIAL-FLOW COMPRESSOR OF A TURBOJET ENGINE. Merle C. Huppert, Howard F. Calvert, and André J. Meyer. April 1954. 24p. diagrs., tabs. (NACA RM E54A08)

EXPERIMENTAL INVESTIGATION OF CONTROL SIGNALS AND THE NATURE OF STALL AND SURGE BEHAVIOR IN A TURBOJET ENGINE. G. J. Delio and P. M. Stiglic. December 1954. 62p. diagrs. (NACA RM E54I15)

PRELIMINARY INVESTIGATION OF THE STRENGTH AND ENDURANCE OF PLASTIC-IMPREGNATED FIBERGLASS COMPRESSOR BLADES. Donald F. Johnson and André J. Meyer, Jr. January 1955. 21p. diagrs., photos. (NACA RM E54I27a)

COMPRESSOR-BLADE VIBRATION AND PERFORMANCE IN A J47-23 TURBOJET ENGINE UNDER CONDITIONS OF ROTATING STALL. Morgan P. Hanson, Donald F. Johnson, and André J. Meyer, Jr. June 1955. 18p. diagrs., tab. (NACA RM E54L20a)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. VI - OVER-ALL PERFORMANCE, ROTATING STALL, AND BLADE VIBRATION AT LOW AND INTERMEDIATE COMPRESSOR SPEEDS. Raymond M. Standahar, Morgan P. Hanson, and Richard P. Geye. November 1955. 21p. diagrs. (NACA RM E55I13)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME III. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 364p. diagrs., photos., tabs. (NACA RM E56B03b)

INVESTIGATION OF SOME MECHANICAL PROPERTIES OF THERMENOL COMPRESSOR BLADES. Donald F. Johnson. October 1957. 14p. diagrs., photo. (NACA TN 4097)

(3.6.3) MATCHING

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. I - EFFECT OF MODE OF ENGINE OPERATION ON PERFORMANCE OF TURBOPROP ENGINE WITH CURRENT COMPRESSOR PRESSURE RATIO. Elmer H. Davison. May 1955. 34p. diagrs. (NACA RM E54D19)

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. II - DESIGN REQUIREMENTS AND PERFORMANCE OF TURBOPROP ENGINES WITH A SINGLE-SPOOL HIGH-PRESSURE-RATIO COMPRESSOR. Elmer H. Davison and Margaret C. Stalla. May 1955. 32p. diagrs., tabs. (NACA RM E55B18)

INVESTIGATION OF A HIGH-PRESSURE-RATIO EIGHT-STAGE AXIAL-FLOW RESEARCH COMPRESSOR WITH TWO TRANSONIC INLET STAGES. IV - MODIFICATION OF AERODYNAMIC DESIGN AND PREDICTION OF PERFORMANCE. Richard P. Geye and Charles H. Voit. June 1955. 22p. diagrs., tab. (NACA RM E55B28)

PERFORMANCE OF A HIGH-SOLIDITY HIGH-PRESSURE-RATIO TRANSONIC ROTOR. Harvey E. Neumann. November 1955. 29p. diagrs., photo. (NACA RM E55I19)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME II. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. x, 275p. diagrs., tabs. (NACA RM E56B03a)

AERODYNAMIC DESIGN OF AXIAL-FLOW COMPRESSORS. VOLUME III. Compressor and Turbine Research Division. Edited by Irving A. Johnsen and Robert O. Bullock. August 1956. xii, 364p. diagrs., photos., tabs. (NACA RM E56B03b)

EFFECT OF DESIGN OVER-ALL COMPRESSOR PRESSURE RATIO DIVISION ON ACCELERATION CHARACTERISTICS OF THREE HYPOTHETICAL TWO-SPOOL TURBOJET ENGINES. Richard E. Filippi and James F. Dugan, Jr. August 1956. 26p. diagrs. (NACA RM E56D13)

(3.7)
Turbines

MECHANICAL DESIGN ANALYSIS OF SEVERAL NONCRITICAL AIR-COOLED TURBINE DISKS AND A CORRUGATED-INSERT AIR-COOLED TURBINE ROTOR BLADE. Merland L. Moseson, Morton H. Krasner, and Robert R. Ziemer. July 1953. 49p. diagrs., photos., tabs. (NACA RM E53E21)

DESIGN AND EXPERIMENTAL INVESTIGATION OF LIGHTWEIGHT BASES FOR AIR-COOLED TURBINE ROTOR BLADES. John C. Freche and Roy A. McKinnon. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E10)

EFFECTIVENESS OF A TURBOJET TUBULAR COMBUSTOR IN SCREENING THE TURBINE FROM FOREIGN OBJECTS. Patrick T. Chiarito. July 1955. 20p. diagrs., photos. (NACA RM E55E16)

(3.7.1)
FLOW THEORY AND EXPERIMENT

A TWO-DIMENSIONAL CASCADE STUDY OF THE AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and Cavour H. Hauser. September 1951. 15p. diagrs., photos. (NACA RM E51G18)

AN EXPERIMENTAL CASCADE STUDY OF THE EFFECTS OF A SOLIDITY REDUCTION ON THE TWO-DIMENSIONAL AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and William J. Nusbaum. May 1952. 17p. diagrs., photos. (NACA RM E52B27)

APPLICATION OF RADIAL-EQUILIBRIUM CONDITION TO AXIAL-FLOW TURBOMACHINE DESIGN INCLUDING CONSIDERATION OF CHANGE OF ENTROPY WITH RADIUS DOWNSTREAM OF BLADE ROW. James E. Hatch, Charles C. Giamati, and Robert J. Jackson. April 1954. 52p. diagrs. (NACA RM E54A20)

EFFECT OF NOZZLE SECONDARY FLOWS ON TURBINE PERFORMANCE AS INDICATED BY EXIT SURVEYS OF A ROTOR. Warren J. Whitney, Howard A. Buckner, Jr., and Daniel E. Monroe. April 1954. 11p. diagrs. (NACA RM E54B03)

INVESTIGATION OF COMPRESSIBLE FLOW MIXING LOSSES OBTAINED DOWNSTREAM OF A BLADE ROW. Warner L. Stewart. December 1954. 21p. diagrs. (NACA RM E54I20)

QUALITATIVE STUDY OF FLOW CHARACTERISTICS THROUGH SINGLE-STAGE TURBINES AS MADE FROM ROTOR-EXIT SURVEYS. Robert Y. Wong, James W. Miser, and Warner L. Stewart. March 1956. 26p. diagrs. (NACA RM E55K21)

(3.7.1.1)
AXIAL FLOW

COMPARISON OF MEASURED EFFICIENCIES OF NINE TURBINE DESIGNS WITH EFFICIENCIES PREDICTED BY TWO EMPIRICAL METHODS. Robert E. English and Richard H. Cavicchi. August 1951. 23p. diagrs., tab. (NACA RM E51F13)

A TWO-DIMENSIONAL CASCADE STUDY OF THE AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and Cavour H. Hauser. September 1951. 15p. diagrs., photos. (NACA RM E51G18)

COLD-AIR INVESTIGATION OF A TURBINE WITH NONTWISTED ROTOR BLADES SUITABLE FOR AIR COOLING. Thomas R. Heaton, William R. Slivka, and Leonard F. Westra. March 1952. 34p. diagrs., photos. (NACA RM E52A25)

AN EXPERIMENTAL CASCADE STUDY OF THE EFFECTS OF A SOLIDITY REDUCTION ON THE TWO-DIMENSIONAL AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and William J. Nusbaum. May 1952. 17p. diagrs., photos. (NACA RM E52B27)

COMPONENT AND OVER-ALL PERFORMANCE EVALUATION OF AN AXIAL-FLOW TURBOJET ENGINE OVER A RANGE OF ENGINE-INLET REYNOLDS NUMBERS. Curtis L. Walker, S. C. Huntley, and W. M. Braithwaite. July 1952. 42p. diagrs., tabs. (NACA RM E52B08)

TURBINE DESIGN CONSIDERATIONS FOR TURBINE-PROPELLER ENGINE OPERATING OVER A RANGE OF FLIGHT CONDITIONS. Elmer H. Davison. June 1953. 20p. diagrs., tab. (NACA RM E53D16)

DESIGN AND EXPERIMENTAL INVESTIGATION OF TRANSONIC TURBINE WITH SLIGHT NEGATIVE REACTION ACROSS ROTOR HUB. Warner L. Stewart, Robert Y. Wong, and David G. Evans. March 1954. 40p. diagrs., photo., tabs. (NACA RM E53L29a)

LOW-VELOCITY TURNING AS A MEANS OF MINIMIZING BOUNDARY-LAYER ACCUMULATIONS RESULTING FROM SECONDARY FLOWS WITHIN TURBINE STATORS. Warner L. Stewart and Robert Y. Wong. May 1954. 18p. diagrs., photo. (NACA RM E54B16)

INVESTIGATION OF EFFECT OF INCREASED DIFFUSION OF ROTOR-BLADE SUCTION-SURFACE VELOCITY ON PERFORMANCE OF TRANSONIC TURBINE. Robert Y. Wong, Daniel E. Monroe, and William T. Wintucky. August 1954. 19p. diagrs., photo., tab. (NACA RM E54F03)

INVESTIGATION OF TRANSONIC TURBINE DESIGNED FOR ZERO DIFFUSION OF SUCTION-SURFACE VELOCITY. Warren J. Whitney, Daniel E. Monroe, and Robert Y. Wong. August 1954. 20p. diagrs., photo., tab. (NACA RM E54F23)

INVESTIGATION OF A TRANSONIC TURBINE DESIGNED FOR A MAXIMUM ROTOR-BLADE SUCTION-SURFACE RELATIVE MACH NUMBER OF 1.57. Warren J. Whitney, Robert Y. Wong, and Daniel E. Monroe. October 1954. 22p. diagrs., photo., tabs. (NACA RM E54G27)

CORRELATION OF TURBINE-BLADE-ELEMENT LOSSES BASED ON WAKE MOMENTUM THICKNESS WITH DIFFUSION PARAMETER FOR A SERIES OF SUBSONIC TURBINE BLADES IN TWO-DIMENSIONAL CASCADE AND FOR FOUR TRANSONIC TURBINE ROTORS. Robert Y. Wong and Warner L. Stewart. April 1955. 31p. diagrs. (NACA RM E55B08)

PRELIMINARY INVESTIGATION OF HOLLOW-BLADED TURBINES HAVING CLOSED AND OPEN BLADE TIPS. Gordon T. Smith and Robert O. Hickel. August 1955. 18p. diagrs., photo., tab. (NACA RM E55F27a)

EFFECT OF HIGH ROTOR PRESSURE-SURFACE DIFFUSION ON PERFORMANCE OF A TRANSONIC TURBINE. James W. Miser, Warner L. Stewart, and Daniel E. Monroe. November 1955. 35p. diagrs., photos., tabs. (NACA RM E55H29a)

USE OF EFFECTIVE MOMENTUM THICKNESS IN DESCRIBING TURBINE ROTOR-BLADE LOSSES. Warner L. Stewart, Warren J. Whitney, and James W. Miser. May 1956. 26p. diagrs. (NACA RM E56B29)

VISUALIZATION OF ROTOR TIP SECONDARY FLOWS WITH BLADE TIP AIR DISCHARGE AND SUCTION IN A LOW-SPEED TURBINE. Milton G. Kofskey and Hubert W. Allen. August 1956. 28p. diagrs., photos. (NACA RM E56E16)

ANALYSIS OF TURBOMACHINE VISCOUS LOSSES AFFECTED BY CHANGES IN BLADE GEOMETRY. James W. Miser, Warner L. Stewart, and Warren J. Whitney. October 1956. 50p. diagrs., tab. (NACA RM E56F21)

ANALYTICAL INVESTIGATION OF SINGLE-STAGE-TURBINE EFFICIENCY CHARACTERISTICS IN TERMS OF WORK AND SPEED REQUIREMENTS. Warner L. Stewart. October 1956. 45p. diagrs. (NACA RM E56G31)

ANALYSIS OF EFFICIENCY CHARACTERISTICS OF A SINGLE-STAGE TURBINE WITH DOWNSTREAM STATORS IN TERMS OF WORK AND SPEED REQUIREMENTS. William T. Wintucky and Warner L. Stewart. January 1957. 28p. diagrs. (NACA RM E56J19)

ANALYSIS OF TWO-STAGE-TURBINE EFFICIENCY CHARACTERISTICS IN TERMS OF WORK AND SPEED REQUIREMENTS. Warner L. Stewart and William T. Wintucky. August 1957. 45p. diagrs., tabs. (NACA RM E57F12)

ANALYTICAL INVESTIGATION OF MULTISTAGE-TURBINE EFFICIENCY CHARACTERISTICS IN TERMS OF WORK AND SPEED REQUIREMENTS. Warner L. Stewart. February 1958. 18p. diagrs. (NACA RM E57K22b)

ANALYSIS OF TWO-STAGE COUNTERROTATING TURBINE EFFICIENCIES IN TERMS OF WORK AND SPEED REQUIREMENTS. William T. Wintucky and Warner L. Stewart. March 1958. 33p. diagrs., tabs. (NACA RM E57L05)

MAXIMUM THEORETICAL TANGENTIAL VELOCITY COMPONENT POSSIBLE FROM STRAIGHT-BACK CONVERGING AND CONVERGING-DIVERGING STATORS AT SUPERCRITICAL PRESSURE RATIOS. Thomas P. Moffitt. April 1958. 21p. diagrs. (NACA TN 4271)

TORQUE-SPEED CHARACTERISTICS FOR HIGH-SPECIFIC-WORK TURBINES. Warner L. Stewart. September 1958. 21p. diagrs. (NACA TN 4379)

(3.7.1.3) MIXED FLOW

INVESTIGATION OF TURBINES FOR DRIVING SUPERSONIC COMPRESSORS. I - DESIGN AND PERFORMANCE OF FIRST CONFIGURATION. Warner L. Stewart, Harold J. Schum, and Warren J. Whitney. June 1952. 27p. diagrs., photo. (NACA RM E52C25)

INVESTIGATION OF TURBINES FOR DRIVING SUPERSONIC COMPRESSORS. II - PERFORMANCE OF FIRST CONFIGURATION WITH 2.2-PERCENT REDUCTION IN NOZZLE FLOW AREA. Warner L. Stewart, Harold J. Schum, and Robert Y. Wong. July 1952. 14p. diagrs., tab. (NACA RM E52E26)

INVESTIGATION OF TURBINES FOR DRIVING SUPERSONIC COMPRESSORS. III - FIRST CONFIGURATION WITH FOUR NOZZLE SETTINGS AND ONE NOZZLE MODIFICATION. Warner L. Stewart, Warren J. Whitney, and Daniel E. Monroe. March 1953. 28p. diagrs., photo., tab. (NACA RM E53A20)

INVESTIGATION OF TURBINES FOR DRIVING SUPERSONIC COMPRESSORS. IV - DESIGN AND PERFORMANCE OF SECOND CONFIGURATION INCLUDING STUDY OF THREE-DIMENSIONAL FLOW EFFECTS. Warren J. Whitney, Warner L. Stewart, and Harold J. Schum. May 1953. 20p. diagrs., photo., tab. (NACA RM E53C02)

INVESTIGATION OF TURBINES FOR DRIVING SUPERSONIC COMPRESSORS. V - DESIGN AND PERFORMANCE OF THIRD CONFIGURATION WITH NONTWISTED ROTOR BLADES. Warren J. Whitney, Warner L. Stewart, and Daniel E. Monroe. September 1953. 23p. diagrs., photos., tab. (NACA RM E53G27)

EFFECT OF NOZZLE SECONDARY FLOWS ON TURBINE PERFORMANCE AS INDICATED BY EXIT SURVEYS OF A ROTOR. Warren J. Whitney, Howard A. Buckner, Jr., and Daniel E. Monroe. April 1954. 11p. diagrs. (NACA RM E54B03)

QUALITATIVE STUDY OF FLOW CHARACTERISTICS THROUGH SINGLE-STAGE TURBINES AS MADE FROM ROTOR-EXIT SURVEYS. Robert Y. Wong, James W. Miser, and Warner L. Stewart. March 1956. 26p. diagrs. (NACA RM E55K21)

(3.7.2) COOLING

A TWO-DIMENSIONAL CASCADE STUDY OF THE AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and Cavour H. Hauser. September 1951. 15p. diagrs., photos. (NACA RM E51G18)

COLD-AIR INVESTIGATION OF A TURBINE WITH NONTWISTED ROTOR BLADES SUITABLE FOR AIR COOLING. Thomas R. Heaton, William R. Slivka, and Leonard F. Westra. March 1952. 34p. diagrs., photos. (NACA RM E52A25)

AN EXPERIMENTAL CASCADE STUDY OF THE EFFECTS OF A SOLIDITY REDUCTION ON THE TWO-DIMENSIONAL AERODYNAMIC CHARACTERISTICS OF A TURBINE-ROTOR BLADE SUITABLE FOR AIR COOLING. Henry W. Plohr and William J. Nusbaum. May 1952. 17p. diagrs., photos. (NACA RM E52B27)

AN ANALYTICAL METHOD FOR EVALUATING FACTORS AFFECTING APPLICATION OF TRANSPIRATION COOLING TO GAS TURBINE BLADES. Jack B. Esgar. September 1952. ii, 68p. diagrs., tabs. (NACA RM E52G01)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. I - LIQUID-COOLING SYSTEMS. Wilson B. Schramm, Alfred J. Nachtigall, and Vernon L. Arne. January 1953. 52p. diagrs., tabs. (NACA RM E52J29)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. II - AIR-COOLING SYSTEMS. Wilson B. Schramm, Vernon L. Arne, and Alfred J. Nachtigall. January 1953. 50p. diagrs., tabs. (NACA RM E52J30)

INVESTIGATION OF WATER-SPRAY COOLING OF TURBINE BLADES IN A TURBOJET ENGINE. John C. Freche and William J. Stelpflug. March 1953. 45p. diagrs., photos., tab. (NACA RM E53A23)

MECHANICAL DESIGN ANALYSIS OF SEVERAL NONCRITICAL AIR-COOLED TURBINE DISKS AND A CORRUGATED-INSERT AIR-COOLED TURBINE ROTOR BLADE. Merland L. Moseson, Morton H. Krasner, and Robert R. Ziemer. July 1953. 49p. diagrs., photos., tabs. (NACA RM E53E21)

EXPERIMENTAL INVESTIGATION OF SEVERAL WATER-INJECTION CONFIGURATIONS FOR TURBINE-BLADE SPRAY COOLING IN A TURBOJET ENGINE. John C. Freche and Roy A. McKinnon. October 1953. 37p. photos., diagrs., tabs. (NACA RM E53H06)

EVALUATION OF EFFECTS OF RANDOM PERMEABILITY VARIATIONS ON TRANSPIRATION-COOLED SURFACES. Jack B. Esgar and Hadley T. Richards. November 1953. 59p. diagrs., photos. (NACA RM E53G16)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. I - TURBINE PERFORMANCE AND ENGINE WEIGHT-FLOW CAPACITY. Richard J. Rossbach, Wilson B. Schramm, and James E. Hubbartt. May 1954. 50p. diagrs., tab. (NACA RM E54C22)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. II - ANALYTICAL TECHNIQUES. Richard J. Rossbach. June 1954. 29p. diagrs. (NACA RM E54D21)

DESIGN AND EXPERIMENTAL INVESTIGATION OF LIGHTWEIGHT BASES FOR AIR-COOLED TURBINE ROTOR BLADES. John C. Freche and Roy A McKinnon. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E10)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. III - ENGINE DESIGN-POINT PERFORMANCE. James E. Hubbartt, Richard J. Rossbach, and Wilson B. Schramm. September 1954. 41p. diagrs., tab. (NACA RM E54F16a)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. IV - COOLANT-FLOW REQUIREMENTS AND PERFORMANCE OF ENGINES USING AIR-COOLED CORRUGATED-INSERT BLADES. Henry O. Slone and James E. Hubbartt. May 1955. 45p. diagrs., photos., tab. (NACA RM E55C09)

PRELIMINARY INVESTIGATION OF HOLLOW-BLADED TURBINES HAVING CLOSED AND OPEN BLADE TIPS. Gordon T. Smith and Robert O. Hickel. August 1955. 18p. diagrs., photo., tab. (NACA RM E55F27a)

ANALYTICAL COMPARISON OF CONVECTION-COOLED TURBINE BLADE COOLING-AIR REQUIREMENTS FOR SEVERAL RADIAL GAS-TEMPERATURE PROFILES. James E. Hubbartt and Henry O. Slone. September 1955. 46p. diagrs. (NACA RM E55G14)

FABRICATION AND ENDURANCE OF AIR-COOLED STRUT-SUPPORTED TURBINE BLADES WITH STRUTS CAST OF X-40 ALLOY. Eugene F. Schum, Francis S. Stepka, and Robert E. Oldrieve. April 1956. 39p. diagrs., photos., tabs. (NACA RM E56A12)

FABRICATION TECHNIQUES AND HEAT-TRANSFER RESULTS FOR CAST-CORED AIR-COOLED TURBINE BLADES. John C. Freche and Robert E. Oldrieve. June 1956. 35p. diagrs., photos. (NACA RM E56C06)

VISUALIZATION OF ROTOR TIP SECONDARY FLOWS WITH BLADE TIP AIR DISCHARGE AND SUCTION IN A LOW-SPEED TURBINE. Milton G. Kofskey and Hubert W. Allen. August 1956. 28p. diagrs., photos. (NACA RM E56E16)

THERMODYNAMIC STUDY OF AIR-CYCLE AND MERCURY-VAPOR-CYCLE SYSTEMS FOR REFRIGERATING COOLING AIR FOR TURBINES OR OTHER COMPONENTS. Alfred J. Nachtigall, John C. Freche, and Jack B. Esgar. October 1956. 47p. diagrs. (NACA RM E56G13)

EXPERIMENTAL INVESTIGATION OF MODIFIED CAST-CORED BLADES HAVING HOLLOW TIP SECTIONS. Robert E. Oldrieve and John C. Freche. June 1957. 36p. diagrs., photos., (NACA RM E57C15)

VELOCITY AND FRICTION CHARACTERISTICS OF LAMINAR VISCOUS BOUNDARY-LAYER AND CHANNEL FLOW OVER SURFACES WITH EJECTION OR SUCTION. E. R. G. Eckert, Patrick L. Donoughe and Betty Jo Moore. December 1957. 57p. diagrs., tabs. (NACA TN 4102)

EFFECT OF CHORD SIZE ON WEIGHT AND COOLING CHARACTERISTICS OF AIR-COOLED TURBINE BLADES. Jack B. Esgar, Eugene F. Schum, and Arthur N. Curren. 1958. ii, 13p. diagrs., tabs. (NACA Rept. 1354. Supersedes TN 3923)

ON PAIRS OF SOLUTIONS OF A CLASS OF INTERNAL VISCOUS FLOW PROBLEMS WITH BODY FORCES. Simon Ostrach and Lynn U. Albers. June 1958. 21p. diagrs., tabs. (NACA TN 4273)

VIBRATION SURVEY OF FOUR REPRESENTATIVE TYPES OF AIR-COOLED TURBINE BLADES. Howard F. Calvert and Gordon T. Smith. July 1958. 22p. diagrs., photos., tabs. (NACA TN 4100)

NATURAL CONVECTION INSIDE A FLAT ROTATING CONTAINER. Simon Ostrach and Willis H. Braun. September 1958. 27p. diagrs. (NACA TN 4323)

(3.7.3) STRESS AND VIBRATION

MECHANICAL DESIGN ANALYSIS OF SEVERAL NONCRITICAL AIR-COOLED TURBINE DISKS AND A CORRUGATED-INSERT AIR-COOLED TURBINE ROTOR BLADE. Merland L. Moseson, Morton H. Krasner, and Robert R. Ziemer. July 1953. 49p. diagrs., photos., tabs. (NACA RM E53E21)

DESIGN AND EXPERIMENTAL INVESTIGATION OF LIGHTWEIGHT BASES FOR AIR-COOLED TURBINE ROTOR BLADES. John C. Freche and Roy A. McKinnon. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E10)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

FABRICATION AND ENDURANCE OF AIR-COOLED STRUT-SUPPORTED TURBINE BLADES WITH STRUTS CAST OF X-40 ALLOY. Eugene F. Schum, Francis S. Stepka, and Robert E. Oldrieve. April 1956. 39p. diagrs., photos., tabs. (NACA RM E56A12)

APPLICATION OF A HIGH-TEMPERATURE STATIC STRAIN GAGE TO THE MEASUREMENT OF THERMAL STRESSES IN A TURBINE STATOR VANE. R. H. Kemp, C. R. Morse, and M. H. Hirschberg. March 1958. 36p. diagrs., photos., tab. (NACA TN 4215)

VIBRATION SURVEY OF FOUR REPRESENTATIVE TYPES OF AIR-COOLED TURBINE BLADES. Howard F. Calvert and Gordon T. Smith. July 1958. 22p. diagrs., photos., tabs. (NACA TN 4100)

THEORETICAL AND EXPERIMENTAL ANALYSIS OF THE REDUCTION OF ROTOR BLADE VIBRATION IN TURBOMACHINERY THROUGH THE USE OF MODIFIED STATOR VANE SPACING. Richard H. Kemp, Marvin H. Hirschberg, and William C. Morgan. September 1958. 43p. diagrs., photos., tabs. (NACA TN 4373)

(3.7.4) MATCHING

TURBINE DESIGN CONSIDERATIONS FOR TURBINE-PROPELLER ENGINE OPERATING OVER A RANGE OF FLIGHT CONDITIONS. Elmer H. Davison. June 1953. 20p. diagrs., tab. (NACA RM E53D16)

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. I - EFFECT OF MODE OF ENGINE OPERATION ON PERFORMANCE OF TURBOPROP ENGINE WITH CURRENT COMPRESSOR PRESSURE RATIO. Elmer H. Davison. May 1955. 34p. diagrs. (NACA RM E54D19)

TURBOPROP-ENGINE DESIGN CONSIDERATIONS. II - DESIGN REQUIREMENTS AND PERFORMANCE OF TURBOPROP ENGINES WITH A SINGLE-SPOOL HIGH-PRESSURE-RATIO COMPRESSOR. Elmer H. Davison and Margaret C. Stalla. May 1955. 32p. diagrs., tabs. (NACA RM E55B18)

EFFECT OF DESIGN OVER-ALL COMPRESSOR PRESSURE RATIO DIVISION ON ACCELERATION CHARACTERISTICS OF THREE HYPOTHETICAL TWO-SPOOL TURBOJET ENGINES. Richard E. Filippi and James F. Dugan, Jr. August 1956. 26p. diagrs. (NACA RM E56D13)

(3.8)
Friction and Lubrication

(3.8.1)
THEORY AND EXPERIMENT

BONDED LEAD MONOXIDE FILMS AS SOLID LUBRICANTS FOR TEMPERATURES UP TO 1250° F. Harold E. Sliney and Robert L. Johnson. May 1957. 25p. diagrs., photos., tabs. (NACA RM E57B15)

FRICTION STUDIES OF VARIOUS MATERIALS IN LIQUID NITROGEN. D. W. Wisander, W. F. Hady, and R. L. Johnson. February 1958. 35p. diagrs., photos., tab. (NACA TN 4211)

RELATION OF JOURNAL BEARING PERFORMANCE TO MINIMUM OIL-FILM THICKNESS. F. W. Ocvirk and G. B. DuBois, Cornell University. April 1958. 48p. diagrs., tab. (NACA TN 4223)

FRICTION AND WEAR WITH REACTIVE GASES AT TEMPERATURES UP TO 1200° F. Gordon P. Allen, Donald H. Buckley, and Robert L. Johnson. September 1958. 26p. diagrs., photos. (NACA TN 4316)

(3.8.1.1)
HYDRODYNAMIC THEORY

AN ANALYSIS OF THE EFFECT OF SEVERAL PARAMETERS ON THE STABILITY OF AN AIR-LUBRICATED HYDROSTATIC THRUST BEARING. William H. Roudebush. October 1957. 34p. diagrs., tab. (NACA TN 4095)

EFFECT OF LUBRICANT VISCOSITY ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. October 1957. 25p. diagrs., photo., tabs. (NACA TN 4101)

EFFECT OF TEMPERATURE ON ROLLING-CONTACT FATIGUE LIFE WITH LIQUID AND DRY POWDER LUBRICANTS. Thomas L. Carter. January 1958. 40p. diagrs., photos., tabs. (NACA TN 4163)

EFFECT OF LUBRICANT BASE STOCK ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. February 1958. 28p. diagrs., tab. (NACA TN 4161)

PRELIMINARY STUDIES OF ROLLING-CONTACT FATIGUE LIFE OF HIGH-TEMPERATURE BEARING MATERIALS. Thomas L. Carter. April 1958. 27p. diagrs., tab. (NACA RM E57K12)

(3.8.1.2)
CHEMISTRY OF LUBRICATION

BONDED LEAD MONOXIDE FILMS AS SOLID LUBRICANTS FOR TEMPERATURES UP TO 1250° F. Harold E. Sliney and Robert L. Johnson. May 1957. 25p. diagrs., photos., tabs. (NACA RM E57B15)

EFFECT OF SLIDING VELOCITY ON FRICTION PROPERTIES AND ENDURANCE LIFE OF BONDED LEAD MONOXIDE COATINGS AT TEMPERATURES UP TO 1250° F. Harold E. Sliney. May 1958. 15p. diagrs. (NACA RM E58B11)

FRICTION AND WEAR WITH REACTIVE GASES AT TEMPERATURES UP TO 1200° F. Gordon P. Allen, Donald H. Buckley, and Robert L. Johnson. September 1958. 26p. diagrs., photos. (NACA TN 4316)

(3.8.2)
SLIDING CONTACT SURFACES

RELATION OF JOURNAL BEARING PERFORMANCE TO MINIMUM OIL-FILM THICKNESS. F. W. Ocvirk and G. B. DuBois, Cornell University. April 1958. 48p. diagrs., tab. (NACA TN 4223)

(3.8.3)
ROLLING CONTACT SURFACES

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

EFFECT OF LUBRICANT VISCOSITY ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. October 1957. 25p. diagrs., photo., tabs. (NACA TN 4101)

EFFECT OF TEMPERATURE ON ROLLING-CONTACT FATIGUE LIFE WITH LIQUID AND DRY POWDER LUBRICANTS. Thomas L. Carter. January 1958. 40p. diagrs., photos., tabs. (NACA TN 4163)

EFFECT OF LUBRICANT BASE STOCK ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. February 1958. 28p. diagrs., tab. (NACA TN 4161)

EFFECT OF FIBER ORIENTATION IN RACES AND BALLS UNDER ROLLING-CONTACT FATIGUE CONDITIONS. Thomas L. Carter. February 1958. 37p. diagrs., photos., tabs. (NACA TN 4216)

PRELIMINARY STUDIES OF ROLLING-CONTACT FATIGUE LIFE OF HIGH-TEMPERATURE BEARING MATERIALS. Thomas L. Carter. April 1958. 27p. diagrs., tab. (NACA RM E57K12)

(3.8.3.1)
ANTIFRICTION BEARING

EFFECT OF TEMPERATURE ON ROLLING-CONTACT FATIGUE LIFE WITH LIQUID AND DRY POWDER LUBRICANTS. Thomas L. Carter. January 1958. 40p. diagrs., photos., tabs. (NACA TN 4163)

EFFECT OF LUBRICANT BASE STOCK ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. February 1958. 28p. diagrs., tab. (NACA TN 4161)

EFFECT OF FIBER ORIENTATION IN RACES AND BALLS UNDER ROLLING-CONTACT FATIGUE CONDITIONS. Thomas L. Carter. February 1958. 37p. diagrs., photos., tabs. (NACA TN 4216)

PRELIMINARY STUDIES OF ROLLING-CONTACT FATIGUE LIFE OF HIGH-TEMPERATURE BEARING MATERIALS. Thomas L. Carter. April 1958. 27p. diagrs., tab. (NACA RM E57K12)

(3.8.4) SLIDING AND ROLLING CONTACT SURFACES

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

(3.8.5) LUBRICANTS

BONDED LEAD MONOXIDE FILMS AS SOLID LUBRICANTS FOR TEMPERATURES UP TO 1250° F. Harold E. Sliney and Robert L. Johnson. May 1957. 25p. diagrs., photos., tabs. (NACA RM E57B15)

AN ANALYSIS OF THE EFFECT OF SEVERAL PARAMETERS ON THE STABILITY OF AN AIR-LUBRICATED HYDROSTATIC THRUST BEARING. William H. Roudebush. October 1957. 34p. diagrs., tab. (NACA TN 4095)

EFFECT OF LUBRICANT VISCOSITY ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. October 1957. 25p. diagrs., photo., tabs. (NACA TN 4101)

EFFECT OF TEMPERATURE ON ROLLING-CONTACT FATIGUE LIFE WITH LIQUID AND DRY POWDER LUBRICANTS. Thomas L. Carter. January 1958. 40p. diagrs., photos., tabs. (NACA TN 4163)

EFFECT OF LUBRICANT BASE STOCK ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. February 1958. 28p. diagrs., tab. (NACA TN 4161)

EFFECT OF SLIDING VELOCITY ON FRICTION PROPERTIES AND ENDURANCE LIFE OF BONDED LEAD MONOXIDE COATINGS AT TEMPERATURES UP TO 1250° F. Harold E. Sliney. May 1958. 15p. diagrs. (NACA RM E58B11)

RESULTS OF AN EXPERIMENTAL INVESTIGATION OF SMALL VISCOUS DAMPERS. Milton A. Silveira, Domenic J. Maglieri, and George W. Brooks. June 1958. 49p. diagrs., photos. (NACA TN 4257)

FRICTION AND WEAR WITH REACTIVE GASES AT TEMPERATURES UP TO 1200° F. Gordon P. Allen, Donald H. Buckley, and Robert L. Johnson. September 1958. 26p. diagrs., photos. (NACA TN 4316)

(3.9)
Heat Transfer

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. I - LIQUID-COOLING SYSTEMS. Wilson B. Schramm, Alfred J. Nachtigall, and Vernon L. Arne. January 1953. 52p. diagrs., tabs. (NACA RM E52J29)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. II - AIR-COOLING SYSTEMS. Wilson B. Schramm, Vernon L. Arne, and Alfred J. Nachtigall. January 1953. 50p. diagrs., tabs. (NACA RM E52J30)

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTERBURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K26)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR AN AFTERBURNER WITH A SINTERED, POROUS STAINLESS-STEEL COMBUSTION-CHAMBER WALL. William K. Koffel. June 1953. 47p. diagrs., photos., tabs. (NACA RM E53D08)

COOLING CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER WITH A POROUS WALL OF BRAZED AND ROLLED WIRE CLOTH. William K. Koffel. August 1954. 68p. diagrs., photos., tabs. (NACA RM E54E25)

A METHOD OF COMPUTING THE TRANSIENT TEMPERATURE OF THICK WALLS FROM ARBITRARY VARIATION OF ADIABATIC-WALL TEMPERATURE AND HEAT-TRANSFER COEFFICIENT. P. R. Hill. October 1957. 54p. diagrs., tabs. (NACA TN 4105)

EFFECT OF CHORD SIZE ON WEIGHT AND COOLING CHARACTERISTICS OF AIR-COOLED TURBINE BLADES. Jack B. Esgar, Eugene F. Schum, and Arthur N. Curren. 1958. ii, 13p. diagrs., tabs. (NACA Rept. 1354. Supersedes TN 3923)

EXPERIMENTAL THERMAL CONDUCTIVITIES OF THE $N_2O_4 \rightleftarrows 2NO_2$ SYSTEM. Kenneth P. Coffin and Cleveland O'Neal, Jr. February 1958. 22p. diagrs., photo., tab. (NACA TN 4209)

FREE CONVECTION UNDER THE CONDITIONS OF THE INTERNAL PROBLEM. (Svobodnaya convectzia v ousloviakh vnoutrennei zadachi.) G. A. Ostroumov. April 1958. vii, 233p. diagrs., photos., tabs. (NACA TM 1407. Translation of Russian Book, 1952)

PRANDTL NUMBER EFFECTS ON UNSTEADY FORCED-CONVECTION HEAT TRANSFER. E. M. Sparrow and J. L. Gregg. June 1958. 14p. diagrs., tab. (NACA TN 4311)

NATURAL CONVECTION INSIDE A FLAT ROTATING CONTAINER. Simon Ostrach and Willis H. Braun. September 1958. 27p. diagrs. (NACA TN 4323)

(3.9.1)
THEORY AND EXPERIMENT

AN ANALYTICAL METHOD FOR EVALUATING FACTORS AFFECTING APPLICATION OF TRANSPIRATION COOLING TO GAS TURBINE BLADES. Jack B. Esgar. September 1952. ii, 68p. diagrs., tabs. (NACA RM E52G01)

EVALUATION OF EFFECTS OF RANDOM PERMEABILITY VARIATIONS ON TRANSPIRATION-COOLED SURFACES. Jack B. Esgar and Hadley T. Richards. November 1953. 59p. diagrs., photos. (NACA RM E53G16)

FORCED-CONVECTION HEAT-TRANSFER CHARACTERISTICS OF MOLTEN FLINAK FLOWING IN AN INCONEL X SYSTEM. Milton D. Grele and Louis Gedeon. February 1954. 23p. diagrs., photos., tab. (NACA RM E53L18)

INVESTIGATION OF POROUS GAS-HEATED LEADING-EDGE SECTION FOR ICING PROTECTION OF A DELTA WING. Dean T. Bowden. January 1955. 54p. diagrs., photos., tab. (NACA RM E54I03)

THE EFFECT OF FLUID INJECTION ON THE COMPRESSIBLE TURBULENT BOUNDARY LAYER - PRELIMINARY TESTS ON TRANSPIRATION COOLING OF A FLAT PLATE AT M = 2.7 WITH AIR AS THE INJECTED GAS. Morris W. Rubesin, Constantine C. Pappas, and Arthur F. Okuno. December 1955. 37p. diagrs. (NACA RM A55I19)

THE INFLUENCE OF SURFACE INJECTION ON HEAT TRANSFER AND SKIN FRICTION ASSOCIATED WITH THE HIGH-SPEED TURBULENT BOUNDARY LAYER. Morris W. Rubesin. February 1956. 16p. diagrs. (NACA RM A55L13)

EXPERIMENTAL INVESTIGATION OF MODIFIED CAST-CORED BLADES HAVING HOLLOW TIP SECTIONS. Robert E. Oldrieve and John C. Freche. June 1957. 36p. diagrs., photos., (NACA RM E57C15)

THE PRINCIPLES OF TURBULENT HEAT TRANSFER. (Die Grundlagen des Turbulenten Warmeuberganges.) H. Reichardt. September 1957. 45p. diagrs., tabs. (NACA TM 1408. Translation from Archiv fur die gesamte Warmetechnik, no. 6/7, 1951, p.129-142)

INFLUENCE OF TURBULENCE ON TRANSFER OF HEAT FROM CYLINDERS. J. Kestin and P. F. Maeder, Brown University. October 1957. 78p. diagrs., tabs. (NACA TN 4018)

EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR A TURBULENT BOUNDARY LAYER IN SUBSONIC FLOW USING AIR AS A COOLANT. William E. Brunk. October 1957. 35p. diagrs. (NACA TN 4091)

EVAPORATION, HEAT TRANSFER, AND VELOCITY DISTRIBUTION IN TWO-DIMENSIONAL AND ROTATIONALLY SYMMETRICAL LAMINAR BOUNDARY-LAYER FLOW. (Verdunstung, Warmeubergang und Geschwindigkeitsverteilung bei zweidimensionaler und rotationssymmetrischer laminarer Grenzschichtströmung.) Nils Frössling. February 1958. 37p. tabs. (NACA TM 1432. Translation from Lunds Universitets Arsskrift, v. 36, no. 4. Kungl. Fysiografiska Sallskapets Handlingar, v. 51, no. 4, 1940)

AN ANALYSIS OF THE TURBULENT BOUNDARY-LAYER CHARACTERISTICS ON A FLAT PLATE WITH DISTRIBUTED LIGHT-GAS INJECTION. Morris W. Rubesin and Constantine C. Pappas. February 1958. 43p. diagrs. (NACA TN 4149)

CORRELATION OF TURBULENT HEAT TRANSFER IN A TUBE FOR THE DISSOCIATING SYSTEM $N_2O_4 \rightleftarrows 2NO_2$. Richard S. Brokaw. March 1958. 17p. diagrs., tabs. (NACA RM E57K19a)

MEASUREMENTS OF TOTAL HEMISPHERICAL EMISSIVITY OF VARIOUS OXIDIZED METALS AT HIGH TEMPERATURE. William R. Wade. March 1958. 43p. diagrs., photos. (NACA TN 4206)

FREE CONVECTION UNDER THE CONDITIONS OF THE INTERNAL PROBLEM. (Svobodnaya convectzia v ousloviakh vnoutrennei zadachi.) G. A. Ostroumov. April 1958. vii, 233p. diagrs., photos., tabs. (NACA TM 1407. Translation of Russian Book, 1952)

ANALYSIS OF TURBULENT FLOW AND HEAT TRANSFER ON A FLAT PLATE AT HIGH MACH NUMBERS WITH VARIABLE FLUID PROPERTIES. R. G. Deissler and A. L. Loeffler, Jr. April 1958. 61p. diagrs. (NACA TN 4262)

HEAT TRANSFER IN ISOTROPIC TURBULENCE DURING THE FINAL PERIOD OF DECAY. D. W. Dunn and W. H. Reid, Johns Hopkins University and Ballistic Research Laboratories, U. S. Army. June 1958. 68p. diagrs., tabs. (NACA TN 4186)

ON PAIRS OF SOLUTIONS OF A CLASS OF INTERNAL VISCOUS FLOW PROBLEMS WITH BODY FORCES. Simon Ostrach and Lynn U. Albers. June 1958. 21p. diagrs., tabs. (NACA TN 4273)

TURBULENCE AND TEMPERATURE FLUCTUATIONS BEHIND A HEATED GRID. R. R. Mills, Jr., A. L. Kistler, V. O'Brien, and S. Corrsin, Johns Hopkins University. August 1958. 67p. diagrs. (NACA TN 4288)

TEMPERATURE AND THERMAL-STRESS DISTRIBUTIONS IN SOME STRUCTURAL ELEMENTS HEATED AT A CONSTANT RATE. William A. Brooks, Jr. August 1958. 77p. diagrs., tab. (NACA TN 4306)

TRANSIENT TEMPERATURE DISTRIBUTION IN A TWO-COMPONENT SEMI-INFINITE COMPOSITE SLAB OF ARBITRARY MATERIALS SUBJECTED TO AERODYNAMIC HEATING WITH A DISCONTINUOUS CHANGE IN EQUILIBRIUM TEMPERATURE OR HEAT-TRANSFER COEFFICIENT. Robert L. Trimpi and Robert A. Jones. September 1958. 83p. diagrs., tabs. (NACA TN 4308)

ON FULLY DEVELOPED CHANNEL FLOWS: SOME SOLUTIONS AND LIMITATIONS, AND EFFECTS OF COMPRESSIBILITY, VARIABLE PROPERTIES, AND BODY FORCES. Stephen H. Maslen. September 1958. 46p. diagrs., tabs. (NACA TN 4319)

A NONLINEAR THEORY FOR PREDICTING THE EFFECTS OF UNSTEADY LAMINAR, TURBULENT, OR TRANSITIONAL BOUNDARY LAYERS ON THE ATTENUATION OF SHOCK WAVES IN A SHOCK TUBE WITH EXPERIMENTAL COMPARISON. Robert L. Trimpi and Nathaniel B. Cohen. September 1958. 105p. diagrs., photos., tab. (NACA TN 4347)

INVESTIGATION OF BOILING BURNOUT AND FLOW STABILITY FOR WATER FLOWING IN TUBES. Warren H. Lowdermilk, Chester D. Lanzo, and Byron L. Siegel. September 1958. 51p. diagrs., tabs. (NACA TN 4382)

A COOLED-GAS PYROMETER FOR USE IN HIGH-TEMPERATURE GAS STREAMS. Lloyd N. Krause, Robert C. Johnson, and George E. Glawe. September 1958. 32p. diagrs. (NACA TN 4383)

ANALYSIS OF TURBULENT FLOW AND HEAT TRANSFER IN NONCIRCULAR PASSAGES. Robert G. Deissler and Maynard F. Taylor. September 1958. 35p. diagrs. (NACA TN 4384)

(3.9.1.1)
CASCADES

NACA INVESTIGATIONS OF ICING-PROTECTION SYSTEMS FOR TURBOJET-ENGINE INSTALLATIONS. Uwe von Glahn, Edmund E. Callaghan, and Vernon H. Gray. May 2, 1951. (ii), 83p. diagrs., photos. (NACA RM E51B12)

(3.9.2)
HEAT EXCHANGERS

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. I - LIQUID-COOLING SYSTEMS. Wilson B. Schramm, Alfred J. Nachtigall, and Vernon L. Arne. January 1953. 52p. diagrs., tabs. (NACA RM E52J29)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. II - AIR-COOLING SYSTEMS. Wilson B. Schramm, Vernon L. Arne, and Alfred J. Nachtigall. January 1953. 50p. diagrs., tabs. (NACA RM E52J30)

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTERBURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K26)

TRANSPORT OF RADIOACTIVITY BY LIQUID SODIUM IN A STAINLESS STEEL CIRCULATION SYSTEM. D. Fieno and D. Bogart. March 2, 1955. 17p. diagrs., photos., tab. (NACA RM E54K03)

THERMODYNAMIC STUDY OF AIR-CYCLE AND MERCURY-VAPOR-CYCLE SYSTEMS FOR REFRIGERATING COOLING AIR FOR TURBINES OR OTHER COMPONENTS. Alfred J. Nachtigall, John C. Freche, and Jack B. Esgar. October 1956. 47p. diagrs. (NACA RM E56G13)

(3.9.2.3)
AFTERCOOLERS

THERMODYNAMIC STUDY OF AIR-CYCLE AND MERCURY-VAPOR-CYCLE SYSTEMS FOR REFRIGERATING COOLING AIR FOR TURBINES OR OTHER COMPONENTS. Alfred J. Nachtigall, John C. Freche, and Jack B. Esgar. October 1956. 47p. diagrs. (NACA RM E56G13)

(3.10)
Cooling of Engines

MECHANICAL DESIGN ANALYSIS OF SEVERAL NONCRITICAL AIR-COOLED TURBINE DISKS AND A CORRUGATED-INSERT AIR-COOLED TURBINE ROTOR BLADE. Merland L. Moseson, Morton H. Krasner, and Robert R. Ziemer. July 1953. 49p. diagrs., photos., tabs. (NACA RM E53E21)

DESIGN AND EXPERIMENTAL INVESTIGATION OF LIGHTWEIGHT BASES FOR AIR-COOLED TURBINE ROTOR BLADES. John C. Freche and Roy A. McKinnon. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E10)

EFFECT OF WALL COOLING ON INLET PARAMETERS OF A SCOOP OPERATING IN A TURBULENT BOUNDARY LAYER ON A FLAT OR CONICAL SURFACE FOR MACH NUMBERS 2 TO 10. Andrew Beke. March 1958. 21p. diagrs., tabs. (NACA TN 4153)

(3.10.2)
GAS-TURBINE SYSTEMS

ALTITUDE-WIND-TUNNEL INVESTIGATION OF TAIL-PIPE BURNER WITH CONVERGING CONICAL BURNER SECTION ON J35-A-5 TURBOJET ENGINE. H. Carl Thorman and Carl E. Campbell. February 10, 1950. 60p. diagrs., photos., tab. (NACA RM E9I16)

EXPERIMENTAL INVESTIGATION OF TAIL-PIPE-BURNER DESIGN VARIABLES. W. A. Fleming, E. William Conrad, and A. W. Young. March 5, 1951. 75p. diagrs., photos., tab. (NACA RM E50K22)

INVESTIGATION OF PERFORMANCE OF SEVERAL DOUBLE-SHROUD EJECTORS AND EFFECT OF VARIABLE-AREA EXHAUST NOZZLE ON SINGLE EJECTOR PERFORMANCE. C. W. Ellis, D. P. Hollister, and H. D. Wilsted. July 1952. 25p. diagrs., photos. (NACA RM E52D25)

AN ANALYTICAL METHOD FOR EVALUATING FACTORS AFFECTING APPLICATION OF TRANSPIRATION COOLING TO GAS TURBINE BLADES. Jack B. Esgar. September 1952. ii, 68p. diagrs., tabs. (NACA RM E52G01)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. I - LIQUID-COOLING SYSTEMS. Wilson B. Schramm, Alfred J. Nachtigall, and Vernon L. Arne. January 1953. 52p. diagrs., tabs. (NACA RM E52J29)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. II - AIR-COOLING SYSTEMS. Wilson B. Schramm, Vernon L. Arne, and Alfred J. Nachtigall. January 1953. 50p. diagrs., tabs. (NACA RM E52J30)

PERFORMANCE OF DOUBLE-SHROUD EJECTOR CONFIGURATION WITH PRIMARY PRESSURE RATIOS FROM 1.0 TO 10. Donald P. Hollister and William K. Greathouse. February 1953. 34p. diagrs., tabs. (NACA RM E52K17)

ANALYSIS OF SEVERAL METHODS OF PUMPING COOLING AIR FOR TURBOJET-ENGINE AFTERBURNERS. John C. Samuels and Herbert Yanowitz. February 1953. 54p. diagrs. (NACA RM E52K26)

INVESTIGATION OF WATER-SPRAY COOLING OF TURBINE BLADES IN A TURBOJET ENGINE. John C. Freche and William J. Stelpflug. March 1953. 45p. diagrs., photos., tab. (NACA RM E53A23)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF TRANSPIRATION COOLING FOR AN AFTERBURNER WITH A SINTERED, POROUS STAINLESS-STEEL COMBUSTION-CHAMBER WALL. William K. Koffel. June 1953. 47p. diagrs., photos., tabs. (NACA RM E53D08)

MECHANICAL DESIGN ANALYSIS OF SEVERAL NONCRITICAL AIR-COOLED TURBINE DISKS AND A CORRUGATED-INSERT AIR-COOLED TURBINE ROTOR BLADE. Merland L. Moseson, Morton H. Krasner, and Robert R. Ziemer. July 1953. 49p. diagrs., photos., tabs. (NACA RM E53E21)

EXPERIMENTAL INVESTIGATION OF SEVERAL WATER-INJECTION CONFIGURATIONS FOR TURBINE-BLADE SPRAY COOLING IN A TURBOJET ENGINE. John C. Freche and Roy A. McKinnon. October 1953. 37p. photos., diagrs., tabs. (NACA RM E53H06)

EVALUATION OF EFFECTS OF RANDOM PERMEABILITY VARIATIONS ON TRANSPIRATION-COOLED SURFACES. Jack B. Esgar and Hadley T. Richards. November 1953. 59p. diagrs., photos. (NACA RM E53G16)

PUMPING AND THRUST CHARACTERISTICS OF SEVERAL DIVERGENT COOLING-AIR EJECTORS AND COMPARISON OF PERFORMANCE WITH CONICAL AND CYLINDRICAL EJECTORS. S. C. Huntley and Herbert Yanowitz. January 1954. 42p. diagrs. (NACA RM E53J13)

PRELIMINARY INVESTIGATION OF PUMPING AND THRUST CHARACTERISTICS OF FULL-SIZE COOLING-AIR EJECTORS AT SEVERAL EXHAUST-GAS TEMPERATURES. W. K. Greathouse. April 1954. 130p. diagrs., photos., tab. (NACA RM E54A18)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. I - TURBINE PERFORMANCE AND ENGINE WEIGHT-FLOW CAPACITY. Richard J. Rossbach, Wilson B. Schramm, and James E. Hubbartt. May 1954. 50p. diagrs., tab. (NACA RM E54C22)

PUMPING AND DRAG CHARACTERISTICS OF AN AIRCRAFT EJECTOR AT SUBSONIC AND SUPERSONIC SPEEDS. Gerald C. Gorton. June 1954. 19p. diagrs. (NACA RM E54D06)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. II - ANALYTICAL TECHNIQUES. Richard J. Rossbach. June 1954. 29p. diagrs. (NACA RM E54D21)

DESIGN AND EXPERIMENTAL INVESTIGATION OF LIGHTWEIGHT BASES FOR AIR-COOLED TURBINE ROTOR BLADES John C. Freche and Roy A. McKinnon. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E10)

COOLING CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER WITH A POROUS WALL OF BRAZED AND ROLLED WIRE CLOTH. William K. Koffel. August 1954. 68p. diagrs., photos., tabs. (NACA RM E54E25)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. III - ENGINE DESIGN-POINT PERFORMANCE. James E. Hubbartt, Richard J. Rossbach, and Wilson B. Schramm. September 1954. 41p. diagrs., tab. (NACA RM E54F16a)

SOME SCREECHING-COMBUSTION CHARACTERISTICS OF A TRANSPIRATION-COOLED AFTERBURNER HAVING A POROUS WALL OF WIRE CLOTH. William K. Koffel, James L. Harp, Jr., and Lively Bryant. November 1954. 12p. diagrs. (NACA RM E54H27)

ANALYSIS OF FACTORS AFFECTING SELECTION AND DESIGN OF AIR-COOLED SINGLE-STAGE TURBINES FOR TURBOJET ENGINES. IV - COOLANT-FLOW REQUIREMENTS AND PERFORMANCE OF ENGINES USING AIR-COOLED CORRUGATED-INSERT BLADES. Henry O. Slone and James E. Hubbartt. May 1955. 45p. diagrs., photos., tab. (NACA RM E55C09)

MATCHING OF AUXILIARY INLETS TO SECONDARY-AIR REQUIREMENTS OF AIRCRAFT EJECTOR EXHAUST NOZZLES. Donald P. Hearth, Gerald W. Englert, and Kenneth L. Kowalski. August 1955. 39p. diagrs. (NACA RM E55D21)

ANALYTICAL COMPARISON OF CONVECTION-COOLED TURBINE BLADE COOLING-AIR REQUIREMENTS FOR SEVERAL RADIAL GAS-TEMPERATURE PROFILES. James E. Hubbartt and Henry O. Slone. September 1955. 46p. diagrs. (NACA RM E55G14)

MODIFIED TUBULAR COMBUSTORS AS HIGH-TEMPERATURE GAS GENERATORS. Robert Friedman and Eugene V. Zettle. October 1955. 17p. diagrs., photos., tabs. (NACA RM E55H25)

FABRICATION AND ENDURANCE OF AIR-COOLED STRUT-SUPPORTED TURBINE BLADES WITH STRUTS CAST OF X-40 ALLOY. Eugene F. Schum, Francis S. Stepka, and Robert E. Oldrieve. April 1956. 39p. diagrs., photos., tabs. (NACA RM E56A12)

THERMODYNAMIC STUDY OF AIR-CYCLE AND MERCURY-VAPOR-CYCLE SYSTEMS FOR REFRIGERATING COOLING AIR FOR TURBINES OR OTHER COMPONENTS. Alfred J. Nachtigall, John C. Freche, and Jack B. Esgar. October 1956. 47p. diagrs. (NACA RM E56G13)

EXPERIMENTAL INVESTIGATION OF MODIFIED CAST-CORED BLADES HAVING HOLLOW TIP SECTIONS. Robert E. Oldrieve and John C. Freche. June 1957. 36p. diagrs., photos., (NACA RM E57C15)

EFFECT OF CHORD SIZE ON WEIGHT AND COOLING CHARACTERISTICS OF AIR-COOLED TURBINE BLADES. Jack B. Esgar, Eugene F. Schum, and Arthur N. Curren. 1958. ii, 13p. diagrs., tabs. (NACA Rept. 1354. Supersedes TN 3923)

(3.10.5) ROCKETS

INVESTIGATION OF BOILING BURNOUT AND FLOW STABILITY FOR WATER FLOWING IN TUBES. Warren H. Lowdermilk, Chester D. Lanzo, and Byron L. Siegel. September 1958. 51p. diagrs., tabs. (NACA TN 4382)

(3.11)
Properties of Gases

EXPERIMENTAL THERMAL CONDUCTIVITIES OF THE $N_2O_4 \rightleftarrows 2NO_2$ SYSTEM. Kenneth P. Coffin and Cleveland O'Neal, Jr. February 1958. 22p. diagrs., photo., tab. (NACA TN 4209)

TEMPERATURE-PRESSURE-TIME RELATIONS IN A CLOSED CRYOGENIC CONTAINER. Sidney C. Huntley. February 1958. 21p. diagrs. (NACA TN 4259)

(3.11.1)
KINETIC

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-PERCENT-FLUORINE - 30-PERCENT-OXYGEN MIXTURE AS A ROCKET PROPELLANT. I - FROZEN COMPOSITION. Sanford Gordon and Vearl N. Huff. April 1956. 38p. diagrs., tabs. (NACA RM E56A13a)

THEORETICAL PERFORMANCE OF JP-4 FUEL WITH A 70-30 MIXTURE OF FLUORINE AND OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Sanford Gordon and Vearl N. Huff. October 1956. 49p. diagrs., tabs. (NACA RM E56F04)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Kenneth S. Drellishak. November 1957. 62p. diagrs., tabs. (NACA RM E57G16a)

EFFECT OF OXYGEN RECOMBINATION ON ONE-DIMENSIONAL FLOW AT HIGH MACH NUMBERS. Steve P. Heims. January 1958. 52p. diagrs. (NACA TN 4144)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING EQUILIBRIUM COMPOSITION. Sanford Gordon. February 1958. 69p. diagrs., tabs. (NACA RM E57K22)

CORRELATION OF TURBULENT HEAT TRANSFER IN A TUBE FOR THE DISSOCIATING SYSTEM $N_2O_4 \rightleftarrows 2NO_2$. Richard S. Brokaw. March 1958. 17p. diagrs., tabs. (NACA RM E57K19a)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA WITH LIQUID OXYGEN AS A ROCKET PROPELLANT. Sanford Gordon and Alan R. Glueck. May 1958. 84p. diagrs., tabs. (NACA RM E58A21)

THEORETICAL ROCKET PERFORMANCE OF LIQUID METHANE WITH SEVERAL FLUORINE-OXYGEN MIXTURES ASSUMING FROZEN COMPOSITION. Sanford Gordon and Michael E. Kastner. May 1958. 44p. diagrs., tabs. (NACA RM E58B20)

RATE OF REACTION OF GASEOUS FLUORINE WITH WATER VAPOR AT 35° C. Vernon A. Slabey and Edward A. Fletcher. September 1958. 16p. diagrs., tabs. (NACA TN 4374)

(3.11.2)
THERMODYNAMIC

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. Leonard K. Tower. June 1955. 79p. diagrs. (NACA RM E55A31)

ANALYTIC EVALUATION OF EFFECT OF INLET-AIR TEMPERATURE AND COMBUSTION PRESSURE ON COMBUSTION PERFORMANCE OF BORON SLURRIES AND BLENDS OF PENTABORANE IN OCTENE-1. SUPPLEMENT I - INFLUENCE OF NEW BORIC-OXIDE VAPOR-PRESSURE DATA ON CALCULATED PERFORMANCE OF PENTABORANE. Leonard K. Tower. May 1956. 11p. diagrs. (NACA RM E56D02)

PHYSICAL CHARACTERISTICS AND TEST CONDITIONS OF AN ETHYLENE-HEATED HIGH-TEMPERATURE JET. Roland D. English, Abraham Spinak, and Eldred H. Helton. January 1958. 28p. diagrs., photos. (NACA TN 4182)

PRANDTL-MEYER EXPANSION OF CHEMICALLY REACTING GASES IN LOCAL CHEMICAL AND THERMODYNAMIC EQUILIBRIUM. Steve P. Heims. March 1958. 17p. diagrs. (NACA TN 4230)

DILUTION OF LIQUID OXYGEN WHEN NITROGEN IS USED FOR PRESSURIZATION. Thomas J. Walsh, R. R. Hibbard, and Paul M. Ordin. April 1958. 17p. diagrs. (NACA RM E58A03a)

COMPOSITION AND THERMODYNAMIC PROPERTIES OF AIR IN CHEMICAL EQUILIBRIUM. W. E. Moeckel and Kenneth C. Weston. April 1958. 39p. diagrs. (NACA TN 4265)

(3.12)
Accessories and Accessory Functions

(3.12.1)
FUEL SYSTEMS

(3.12.1.4)
TURBOJET ENGINES

CHARACTERISTICS OF A HYDRAULIC CONTROL DETERMINED FROM TRANSIENT DATA OBTAINED WITH A TURBOJET ENGINE AT ALTITUDE. George Vasu, William L. Hinde, and R. T. Craig. June 1954. 62p. diagrs., photo., tab. (NACA RM E53D02)

ENGINE PERFORMANCE OF ALLOY 73J TURBINE BLADES CAST TO PREDETERMINED GRAIN SIZES. James R. Johnston, Charles A. Gyorgak, and John W. Weeton. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E05)

EXPERIMENTAL INVESTIGATION OF CONTROL SIGNALS AND THE NATURE OF STALL AND SURGE BEHAVIOR IN A TURBOJET ENGINE. G. J. Delio and P. M. Stiglic. December 1954. 62p. diagrs. (NACA RM E54I15)

EXPERIMENTAL INVESTIGATION OF TURBOJET-ENGINE MULTIPLE-LOOP CONTROLS FOR NON-AFTERBURNING AND AFTERBURNING MODES OF ENGINE OPERATION. Donald B. Kirsch, Leon M. Wenzel, and Clint E. Hart. January 1958. 61p. diagrs., tab. (NACA TN 4159)

(3.12.1.5)
TURBINE-PROPELLER ENGINES

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF AN XT38-A-2 TURBOPROP ENGINE. R. H. Essig and F. W. Schulze. March 1954. 43p. diagrs., photos., tab. (NACA RM E53L18a)

(3.12.1.7)
RAM-JET ENGINES

FLIGHT AND PREFLIGHT TESTS OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND UTILIZING A SOLID-PROPELLANT GAS GENERATOR FOR FUEL EXPULSION. Walter A. Bartlett, Jr., and William K. Hagginbothom, Jr. April 1955. 35p. diagrs., photos. (NACA RM L55A24)

EXPERIMENTAL EVALUATION OF BORON-HYDROCARBON SLURRY IN A 16-INCH RAM-JET COMBUSTOR. William R. Kerslake, E. E. Dangle, and A. J. Cervenka. June 1955. 37p. diagrs., photos., tabs. (NACA RM E55C07)

PREFLIGHT AND FLIGHT-TEST INVESTIGATION OF A 50-PERCENT-MAGNESIUM 50-PERCENT JP-4 SLURRY FUEL IN A TWIN-ENGINE RAM-JET VEHICLE. Otto F. Trout, Jr., and Thomas L. Kennedy. May 1956. 27p. diagrs., photos. (NACA RM L56C06)

FLIGHT INVESTIGATION OF A RAM JET BURNING MAGNESIUM SLURRY FUEL AND HAVING A CONICAL SHOCK INLET DESIGNED FOR A MACH NUMBER OF 4.1. Walter A. Bartlett, Jr., and Charles F. Merlet. January 1957. 23p. diagrs., photos. (NACA RM L56I24a)

(3.12.1.8)
ROCKET ENGINES

INVESTIGATION OF LIQUID FLUORINE - LIQUID AMMONIA PROPELLANT COMBINATION IN A 100-POUND-THRUST ROCKET ENGINE. Edward A. Rothenberg and Howard W Douglass. July 1953. 31p. diagrs., photos., tabs. (NACA RM E53E08)

EFFECT OF FLUID-SYSTEM PARAMETERS ON STARTING FLOW IN A LIQUID ROCKET. Richard P. Krebs. September 1957. 38p. diagrs., tab. (NACA TN 4034)

NONMETALLIC MATERIAL COMPATIBILITY WITH LIQUID FLUORINE. Harold G. Price, Jr., and Howard W. Douglass. October 1957. 7p. tab. (NACA RM E57G18)

FRICTION STUDIES OF VARIOUS MATERIALS IN LIQUID NITROGEN. D. W. Wisander, W. F. Hady, and R. L. Johnson. February 1958. 35p. diagrs., photos., tab. (NACA TN 4211)

TEMPERATURE-PRESSURE-TIME RELATIONS IN A CLOSED CRYOGENIC CONTAINER. Sidney C. Huntley. February 1958. 21p. diagrs. (NACA TN 4259)

DILUTION OF LIQUID OXYGEN WHEN NITROGEN IS USED FOR PRESSURIZATION. Thomas J. Walsh, R. R. Hibbard, and Paul M. Ordin. April 1958. 17p. diagrs. (NACA RM E58A03a)

(3.12.1.8.1)
Turbopump

ANALYTICAL INVESTIGATION OF MULTISTAGE-TURBINE EFFICIENCY CHARACTERISTICS IN TERMS OF WORK AND SPEED REQUIREMENTS. Warner L. Stewart. February 1958. 18p. diagrs. (NACA RM E57K22b)

ANALYSIS OF TWO-STAGE COUNTERROTATING TURBINE EFFICIENCIES IN TERMS OF WORK AND SPEED REQUIREMENTS. William T. Wintucky and Warner L. Stewart. March 1958. 33p. diagrs., tabs. (NACA RM E57L05)

TORQUE-SPEED CHARACTERISTICS FOR HIGH-SPECIFIC-WORK TURBINES. Warner L. Stewart. September 1958. 21p. diagrs. (NACA TN 4379)

(3.12.2) IGNITION SYSTEMS

ALTITUDE STARTING CHARACTERISTICS OF AN AFTERBURNER WITH AUTOIGNITION AND HOT-STREAK IGNITION. P. E. Renas, R. W. Harvey, Sr., and E. T. Jansen. April 1953. 25p. diagrs., photos., tab. (NACA RM E53B02)

ALUMINUM BOROHYDRIDE AS AN IGNITION SOURCE FOR TURBOJET COMBUSTORS. David M. Straight, Edward A. Fletcher, and Hampton H. Foster. September 1953. 19p. diagrs., photos., tabs. (NACA RM E53G15)

ALUMINUM BOROHYDRIDE - HYDROCARBON MIXTURES AS A SOURCE OF IGNITION FOR A TURBOJET COMBUSTOR. Hampton H. Foster, Edward A. Fletcher, and David M. Straight. February 1955. 24p. diagrs., photo., tabs. (NACA RM E54K12)

SPARK IGNITION OF FLOWING GASES. Clyde C. Swett, Jr. 1956. ii, 18p. diagrs., tabs. (NACA Rept. 1287)

SUMMARY OF NACA RESEARCH ON IGNITION LAG OF SELF-IGNITING FUEL - NITRIC ACID PROPELLANTS. Gerald Morrell. October 1957. 48p. diagrs., photos., tabs. (NACA RM E57G19)

(3.12.3) STARTING SYSTEMS

PRELIMINARY INVESTIGATION OF A CHEMICAL STARTING TECHNIQUE FOR THE ACID GASOLINE ROCKET PROPELLANT SYSTEM. Glen Hennings and Gerald Morrell. January 1953. 23p. photo., diagrs., tab. (NACA RM E52K21)

(3.12.5) COOLING SYSTEMS

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. I - LIQUID-COOLING SYSTEMS. Wilson B. Schramm, Alfred J. Nachtigall, and Vernon L. Arne. January 1953. 52p. diagrs., tabs. (NACA RM E52J29)

ANALYTICAL COMPARISON OF TURBINE-BLADE COOLING SYSTEMS DESIGNED FOR A TURBOJET ENGINE OPERATING AT SUPERSONIC SPEED AND HIGH ALTITUDE. II - AIR-COOLING SYSTEMS. Wilson B. Schramm, Vernon L. Arne, and Alfred J. Nachtigall. January 1953. 50p. diagrs., tabs. (NACA RM E52J30)

THERMODYNAMIC STUDY OF AIR-CYCLE AND MERCURY-VAPOR-CYCLE SYSTEMS FOR REFRIGERATING COOLING AIR FOR TURBINES OR OTHER COMPONENTS. Alfred J. Nachtigall, John C. Freche, and Jack B. Esgar. October 1956. 47p. diagrs. (NACA RM E56G13)

NATURAL CONVECTION INSIDE A FLAT ROTATING CONTAINER. Simon Ostrach and Willis H. Braun. September 1958. 27p. diagrs. (NACA TN 4323)

(3.13)
Vibration and Flutter

STALL PROPAGATION IN A CASCADE OF AIRFOILS. Anthony R. Kriebel, Barry S. Seidel, and Richard G. Schwind, Massachusetts Institute of Technology. June 1958. 122p. diagrs., photos., tabs. (NACA TN 4134)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. September 1958. 68p. diagrs., photo., tabs. (NACA TN 4005. Supersedes RM L53D24)

(4)
AIRCRAFT LOADS AND CONSTRUCTION

(4.1)
Loads

(4.1.1)
AERODYNAMIC

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - ADDITIONAL STABILITY AND CONTROL CHARACTERISTICS AND THE AERODYNAMIC EFFECTS OF EXTERNAL STORES AND RAM JETS. Joseph W. Cleary and Jack A. Mellenthin. June 13, 1950. 86p. diagrs., photos., tabs. (NACA RM A50C30)

TWO-DIMENSIONAL CHORDWISE LOAD DISTRIBUTIONS AT TRANSONIC SPEEDS. Walter F. Lindsey and Richard S. Dick. February 1952. 41p. diagrs., photos. (NACA RM L51I07)

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 TO 15×10^6. II - AERODYNAMIC LOAD DISTRIBUTIONS OF SERIES OF FIVE BODIES HAVING CONICAL NOSES AND CYLINDRICAL AFTERBODIES. John R. Jack and Lawrence I. Gould. May 1952. 28p. diagrs., photos., tabs. (NACA RM E52C10)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF RECTANGULAR WING AND BODY COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. August 1952. 74p. diagrs., tabs. (NACA RM L52E26)

THEORETICAL CALCULATIONS OF THE STABILITY DERIVATIVES AT SUPERSONIC SPEEDS FOR A HIGH-SPEED AIRPLANE CONFIGURATION. Kenneth Margolis and Percy J. Bobbitt. October 1953. 59p. diagrs., tab. (NACA RM L53G17)

AN INVESTIGATION AT MACH NUMBER 2.40 OF FLAP-TYPE CONTROLS EQUIPPED WITH OVERHANG NOSE BALANCES. James N. Mueller. November 1953. 95p. diagrs., photos., tab. (NACA RM L53I21)

AERODYNAMIC CHARACTERISTICS OF TWO FLAT-BOTTOMED BODIES AT MACH NUMBER OF 3.12. John R. Jack and Barry Moskowitz. April 1954. 9p. diagrs. (NACA RM E53L11b)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS AND SMALL ANGLES OF ATTACK OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 3 WITH AN NACA 64A006 AIRFOIL SECTION. George H. Holdaway. January 1955. 32p. diagrs., photo., tab. (NACA RM A54I17)

FLOW AND FORCE CHARACTERISTICS OF 2-PERCENT-THICK AIRFOILS AT TRANSONIC SPEEDS. Walter F. Lindsey and Emma Jean Landrum. January 1955. 74p. diagrs., photos. (NACA RM L54I30)

A FREE-FLIGHT INVESTIGATION OF THE DRAG COEFFICIENTS OF TWO SINGLE-ENGINE SUPERSONIC INTERCEPTOR CONFIGURATIONS FROM MACH NUMBER 0.8 TO 1.90 TO DETERMINE THE EFFECT OF INLET AND ENGINE LOCATION. APPENDIX: SEPARATION CHARACTERISTICS OF A MODEL FROM A LARGE UNDERSLUNG BOOSTER AT MACH NUMBER 1.95. Joseph H. Judd. September 1955. 49p. diagrs., photos., tabs. (NACA RM L55G05a)

SOME EFFECTS OF AILERONS ON THE VARIATION OF AERODYNAMIC CHARACTERISTICS WITH SIDESLIP AT LOW SPEED. Kenneth W. Goodson. March 1956. 40p. diagrs., tab. (NACA RM L55L20)

INTERACTION OF AN EXHAUST JET AND ELEMENTARY CONTOURED SURFACES LOCATED IN A SUPERSONIC AIR STREAM. Joseph F. Wasserbauer and Gerald W. Englert. April 1956. 20p. diagrs., photo. (NACA RM E56A16)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING DIHEDRAL ANGLE AND FIN LENGTH ON THE STATIC STABILITY CHARACTERISTICS OF A MODEL HAVING AN 82° DELTA WING. Kenneth P. Spreemann. April 1956. 30p. diagrs. (NACA RM L55L30a)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. Walton L. Howes, Edmund E. Callaghan, Willard D. Coles, and Harold R. Mull. Appendix B: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. 1957. ii, 35p. diagrs., photos., tab. (NACA Rept. 1338. Supersedes TN 3763 and TN 3764)

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. October 1957. 61p. diagrs. (NACA TN 4047. Supersedes RM A53D28)

AERODYNAMIC RESEARCH ON FUSELAGES WITH RECTANGULAR CROSS SECTION. (Aerodynamische Untersuchungen an Rumpfen mit rechteckähnlichem Querschnitt.) K. Maruhn. July 1958. 37p. diagrs. (NACA TM 1414. Translation from Jahrbuch 1942 der deutschen Luftfahrtforschung, p. 263-279.)

APPROXIMATE METHOD FOR CALCULATING MOTIONS IN ANGLES OF ATTACK AND SIDESLIP DUE TO STEP PITCHING- AND YAWING-MOMENT INPUTS DURING STEADY ROLL. Martin T. Moul and Teresa R. Brennan. September 1958. 42p. diagrs., tabs. (NACA TN 4346)

(4.1.1.1)
WINGS

FLIGHT TESTS OF A MODEL HAVING SELF-SUPPORTING FUEL-CARRYING PANELS HINGED TO THE WING TIPS. Robert E. Shanks and David C. Grana. November 2, 1949. 10p. diagrs., tab. (NACA RM L9I07a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.59. Morton Cooper and M. Leroy Spearman. May 23, 1950. 52p. diagrs., photos., tabs. (NACA RM L50C24)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF WING LOADS AT MACH NUMBERS UP TO 0.87. John P. Mayer, George M. Valentine, and Beverly J. Swanson. December 26, 1950. 35p. diagrs., photos., tab. (NACA RM L50H16)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF THE DISTRIBUTION OF THE AERODYNAMIC LOAD AMONG THE WING, FUSELAGE, AND HORIZONTAL TAIL AT MACH NUMBERS UP TO 0.87. John P. Mayer and George M. Valentine. January 19, 1951. 33p. diagrs., photos., tab. (NACA RM L50J13)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTION AND 40° SWEEPBACK. A PRESSURE-DISTRIBUTION STUDY OF THE AERODYNAMIC CHARACTERISTICS OF THE WING AT MACH NUMBER 1.40. Norman F. Smith, Julian H. Kainer, and Robert A. Webster. April 20, 1951. 48p. diagrs., photos., tabs. (NACA RM L51C06)

DIVISION OF LOAD AMONG THE WING, FUSELAGE, AND TAIL OF AIRCRAFT. John P. Mayer and Clarence L. Gillis. May 29, 1951. 14p. diagrs. (NACA RM L51E14a)

BASIC PRESSURE MEASUREMENTS ON A FUSELAGE AND A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT TRANSONIC SPEEDS IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Donald L. Loving and Claude V. Williams. September 1951. 59p. diagrs., photos. (NACA RM L51F05)

WING LOAD DISTRIBUTION ON A SWEPT-WING AIRPLANE IN FLIGHT AT MACH NUMBERS UP TO 1.11 AND COMPARISON WITH THEORY. L. Stewart Rolls and Frederick H. Matteson. April 1952. 73p. diagrs., photos., tabs. (NACA RM A52A31)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.75 TO 1.5 OF AN AIRPLANE CONFIGURATION HAVING A 60° SWEPT WING OF ASPECT RATIO 2.24 AS OBTAINED FROM ROCKET-PROPELLED MODELS. A. James Vitale, John C. McFall, Jr., and John D. Morrow. April 1952. 43p. diagrs., photos., tabs. (NACA RM L51K06)

AERODYNAMIC LOADING CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A WING OF 45° SWEEPBACK MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Donald L. Loving and Claude V. Williams. May 1952. 58p. diagrs., photos., tab. (NACA RM L52B27)

LONGITUDINAL STABILITY, CONTROL EFFECTIVENESS, AND DRAG CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING AN UNSWEPT TAPERED WING OF ASPECT RATIO 3.0 AND NACA 65A004.5 AIRFOIL SECTIONS. John C. McFall, Jr., and James A. Hollinger. January 1953. 30p. diagrs., photos. (NACA RM L52L04)

DAMPING IN PITCH OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Murray Tobak. April 1953. ii, 107p. diagrs. (NACA RM A52L04a)

A STUDY OF THE AERODYNAMIC LOADS ON SWEPTBACK WINGS AT TRANSONIC SPEEDS. Claude V. Williams and Richard E. Kuhn. June 1953. 14p. diagrs. (NACA RM L53E08b)

EFFECTS OF LEADING-EDGE SLATS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE CONFIGURATION AT MACH NUMBERS OF 0.4 TO 1.03. Jack F. Runckel and Seymour Steinberg. August 1953. 50p. diagrs., photos. (NACA RM L53F23)

RELATIONSHIP OF FLOW OVER A 45° SWEPTBACK WING WITH AND WITHOUT LEADING-EDGE CHORD-EXTENSIONS TO LONGITUDINAL STABILITY CHARACTERISTICS AT MACH NUMBERS FROM 0.60 TO 1.03. F. E. West, Jr., and James H. Henderson. October 1953. 47p. diagrs., photos. (NACA RM L53H18b)

LONGITUDINAL STABILITY CHARACTERISTICS AT TRANSONIC SPEEDS OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING A 45° SWEPT WING OF ASPECT RATIO 6.0. John C. McFall, Jr. January 1954. 34p. diagrs., photos. (NACA RM L53G22a)

THE EFFECT OF A CHANGE IN BODY SHAPE ON THE LOADING OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. April 1954. 67p. diagrs., photo. (NACA RM L54B09)

COMPARISON OF EXPERIMENTAL WITH CALCULATED RESULTS FOR THE LIFTING EFFECTIVENESS OF A FLEXIBLE 45° SWEPTBACK WING OF ASPECT RATIO 6.0 AT MACH NUMBERS FROM 0.8 TO 1.3. Richard E. Walters. April 1954. 35p. diagrs., photos., tab. (NACA RM L54B16)

EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD DISTRIBUTION OVER A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.60 TO 1.03. Joseph M. Hallissy, Jr., F. E. West, Jr., and George Liner. May 1954. 162p. diagrs., tabs. (NACA RM L54C17a)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

WING PRESSURE DISTRIBUTIONS AT LOW LIFT FOR THE XF-92A DELTA-WING AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener. October 1954. 54p. diagrs., photos., tabs. (NACA RM H54H06)

AN INVESTIGATION OF THE EFFECTS OF A GEOMETRIC TWIST ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Claude V. Williams. October 1954. 87p. diagrs., photos., tabs. (NACA RM L54H18)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.62. Donald E. Coletti. May 1955. 49p. diagrs., photo., tabs. (NACA RM L55B25)

PRELIMINARY RESULTS FROM FLIGHT MEASUREMENTS IN GRADUAL-TURN MANEUVERS OF THE WING LOADS AND THE DISTRIBUTION OF LOAD AMONG THE COMPONENTS OF A BOEING B-47A AIRPLANE. T. V. Cooney, William H. Andrews, and William A. McGowan. June 1955. 20p. diagrs., photo., tab. (NACA RM L55B02)

LONGITUDINAL CHARACTERISTICS AT TRANSONIC AND SUPERSONIC SPEEDS OF A ROCKET-PROPELLED AIRPLANE MODEL HAVING A 60° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Robert F. Peck and Lucille C. Coltrane. September 1955. 33p. diagrs., photo., tabs. (NACA RM L55F27)

WING PRESSURE DISTRIBUTIONS OVER THE LIFT RANGE OF THE CONVAIR XF-92A DELTA-WING AIRPLANE AT SUBSONIC AND TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1955. 135p. diagrs., photos., tabs. (NACA RM H55G07)

A STUDY OF LOCAL-PRESSURE FLUCTUATIONS RELATIVE TO STATIC-PRESSURE DISTRIBUTIONS OF TWO-DIMENSIONAL AIRFOILS AT HIGH SUBSONIC MACH NUMBERS. Charles F. Coe December 1955. 66p. diagrs., photos. (NACA RM A55J11)

INVESTIGATION OF INTERFERENCE LIFT, DRAG, AND PITCHING MOMENT OF A SERIES OF TRIANGULAR-WING AND BODY COMBINATIONS AT A MACH NUMBER OF 1.94. Donald E. Coletti. December 1955, 52p. diagrs., photo., tabs. (NACA RM L55I14)

LONGITUDINAL STABILITY INVESTIGATION FOR A MACH NUMBER RANGE OF 0.8 TO 1.7 OF AN AIRPLANE CONFIGURATION WITH A 45° SWEPT WING AND A LOW HORIZONTAL TAIL. John C. McFall, Jr. February 1956. 32p. diagrs., photos., tab. (NACA RM L55L09)

EFFECT OF WING CAMBER AND TWIST AT MACH NUMBERS FROM 1.4 TO 2.1 ON THE LIFT, DRAG, AND LONGITUDINAL STABILITY OF A ROCKET-POWERED MODEL HAVING A 52.5° SWEPTBACK WING OF ASPECT RATIO 3 AND INLINE TAIL SURFACES. Warren Gillespie, Jr. May 1956. 29p. diagrs., photos., tabs. (NACA RM L56C16)

THE EFFECTS OF BLOWING OVER VARIOUS TRAILING-EDGE FLAPS ON AN NACA 0006 AIRFOIL SECTION, COMPARISONS WITH VARIOUS TYPES OF FLAPS ON OTHER AIRFOIL SECTIONS, AND AN ANALYSIS OF FLOW AND POWER RELATIONSHIPS FOR BLOWING SYSTEMS. Jules B. Dods, Jr., and Earl C. Watson. June 1956. 145p. diagrs., photos., tab. (NACA RM A56C01)

WING LOADS AND LOAD DISTRIBUTIONS THROUGHOUT THE LIFT RANGE OF THE DOUGLAS X-3 RESEARCH AIRPLANE AT TRANSONIC SPEEDS. Earl R. Keener and Gareth H. Jordan. November 1956. 191p. diagrs., photo., tabs. (NACA RM H56G13)

A THEORETICAL STUDY OF THE AERODYNAMICS OF SLENDER CRUCIFORM-WING ARRANGEMENTS AND THEIR WAKES. John R. Spreiter and Alvin H. Sacks. 1957. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1296. Supersedes TN 3528)

DETERMINATION OF LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS FROM FREE-FLIGHT MODEL TESTS WITH RESULTS AT TRANSONIC SPEEDS FOR THREE AIRPLANE CONFIGURATIONS. Clarence L. Gillis and Jesse L. Mitchell. 1957. ii, 28p. diagrs., photos., tabs. (NACA Rept. 1337)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT, HIGHLY TAPERED, THIN WINGS AT TRANSONIC SPEEDS. TRANSONIC-BUMP METHOD. Albert G. Few, Jr., and Paul G. Fournier. January 1957. 57p. diagrs., photo. (NACA RM L56I24)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. February 1958. 52p. diagrs., photos. (NACA TN 4180. Supersedes RM L52L31)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC AND STRUCTURAL DEFLECTION CHARACTERISTICS OF THE GOODYEAR INFLATOPLANE. Bennie W. Cocke, Jr. September 1958. 56p. diagrs., photos. (NACA RM L58E09)

USE OF THE KERNEL FUNCTION IN A THREE-DIMENSIONAL FLUTTER ANALYSIS WITH APPLICATION TO A FLUTTER-TESTED DELTA-WING MODEL. Donald S. Woolston and John L. Sewall. September 1958. 42p. diagrs., tabs. (NACA TN 4395)

(4.1.1.1.1) Steady Loads

WIND-TUNNEL TESTS OF A 0.16-SCALE MODEL OF THE X-3 AIRPLANE AT HIGH SUBSONIC SPEEDS. - WING AND FUSELAGE PRESSURE DISTRIBUTION. Joseph W. Cleary and Jack A. Mellenthin. June 22, 1950. 61p. diagrs., photos. (NACA RM A50D07)

PERFORMANCE CHARACTERISTICS OF CANARD-TYPE MISSILE WITH WING-MOUNTED NACELLE ENGINES AT MACH NUMBERS 1.5 TO 2.0. Emil J. Kremzier and Joseph Davids. November 1952. 30p. diagrs., tab. (NACA RM E52J08)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

LOAD DISTRIBUTIONS ASSOCIATED WITH CONTROLS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1953. 21p. photo., diagrs. (NACA RM L53D15a)

LOADS DUE TO FLAPS AND SPOILERS ON SWEPTBACK WINGS AT SUPERSONIC AND TRANSONIC SPEEDS. Alexander D. Hammond and F. E. West, Jr. June 1953. 17p. diagrs. (NACA RM L53D29a)

INVESTIGATION OF THE EFFECT OF SPANWISE POSITIONING OF A VERTICALLY SYMMETRIC OGIVE-CYLINDER NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6 WITH AND WITHOUT A FUSELAGE. H. Norman Silvers and Thomas J. King, Jr. October 1953. 62p. diagrs., tabs. (NACA RM L53H17)

AERODYNAMIC CHARACTERISTICS OF A FULL-SPAN TRAILING-EDGE CONTROL ON A 60° DELTA WING WITH AND WITHOUT A SPOILER AT MACH NUMBER 1.61. Douglas R. Lord and K. R. Czarnecki. March 1954. 49p. diagrs., photos., tab. (NACA RM L53L17)

LOW-SPEED CHORDWISE PRESSURE DISTRIBUTIONS NEAR THE MIDSPAN STATION OF THE SLOTTED FLAP AND AILERON OF A 1/4-SCALE MODEL OF THE BELL X-1 AIRPLANE WITH A 4-PERCENT-THICK, ASPECT-RATIO-4, UNSWEPT WING. William C. Moseley, Jr., and Robert T. Taylor. March 1954. 59p. diagrs., photos., tabs. (NACA RM L53L18)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF WING-MOUNTED EXTERNAL STORES ON THE LOADING AND AERODYNAMIC CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING COMBINED WITH A FUSELAGE. H. Norman Silvers, Thomas J. King, Jr., and William J. Alford, Jr. March 1954. 36p. diagrs., tabs. (NACA RM L54A21)

AERODYNAMIC CHARACTERISTICS OF SEVERAL TIP CONTROLS ON A 60° DELTA WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and K. R. Czarnecki. August 1954. 44p. diagrs., photos., tabs. (NACA RM L54E25)

WING-LOAD MEASUREMENTS AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Glenn H. Robinson, George E. Cothren, Jr., and Chris Pembo. March 1955. 20p. diagrs., photos., tab. (NACA RM H54L27)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO AND BODY INDENTATION ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING IN THE PRESENCE OF A BODY. James B. Delano and John P. Mugler, Jr. April 1955. 53p. diagrs., photos., tab. (NACA RM L54L28)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF SWEEPBACK AND THICKNESS RATIO ON THE WING LOADS OF A WING-BODY COMBINATION OF ASPECT RATIO 4 AND TAPER RATIO 0.6. Robert J. Platt, Jr., and Joseph D. Brooks. April 1955. 44p. diagrs., photos., tab. (NACA RM L54L31b)

LOADS ON THIN WINGS AT TRANSONIC SPEEDS. Don D. Davis, Jr., and Gerald Hieser. June 1955. 17p. diagrs. (NACA RM L55E11c)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A 60° DELTA WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. John P. Mugler, Jr. September 1955. 30p. diagrs., photos., tab. (NACA RM L55G11)

THE EFFECT OF LEADING-EDGE DROOP UPON THE PRESSURE DISTRIBUTION AND AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING AT TRANSONIC SPEEDS. James W. Schmeer. November 1955. 42p. diagrs., photos. (NACA RM L55I16)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF INCIDENCE AND BODY INDENTATION ON THE WING LOADS OF A 45° SWEPTBACK WING-BODY COMBINATION. Robert J. Platt, Jr. January 1956. 24p. diagrs., photos., tab. (NACA RM L55H26)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A SPOILER AND A SPOILER-SLOT-DEFLECTOR ON A 30° SWEPTBACK WING-FUSELAGE MODEL HAVING AN ASPECT RATIO OF 3, A TAPER RATIO OF 0.5, AND NACA 65A004 AIRFOIL SECTION. Alexander D. Hammond. January 1956. 176p. diagrs., tabs. (NACA RM L55I29)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A HIGHLY TAPERED UNSWEPT WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. Joseph D. Brooks. February 1956. 30p. diagrs., photos., tab. (NACA RM L55J20)

AERODYNAMIC LOADINGS ASSOCIATED WITH SWEPT AND UNSWEPT SPOILERS ON A FLAT PLATE AT MACH NUMBERS OF 1.61 AND 2.01. Douglas R. Lord and K. R. Czarnecki. March 1956. 174p. diagrs., photos., tabs. (NACA RM L55L12)

EFFECT OF FUSELAGE AIR BRAKES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF A SWEPT-WING FIGHTER MODEL AT TRANSONIC SPEEDS. Donald D. Arabian. April 1956. 22p. diagrs., photos. (NACA RM L56A25a)

INVESTIGATION OF THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF TRAILING-EDGE FLAPS OF VARIOUS SPANS ON A WING OF 45° SWEEPBACK AND ASPECT RATIO 6. Roy N. Griffin, Jr., and David H. Hickey. June 1956. 64p. diagrs., photo., tabs. (NACA RM A56B27)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING THE LONGITUDINAL CHARACTERISTICS OF A THIN UNSWEPT-WING MODEL EQUIPPED WITH LEADING- AND TRAILING-EDGE FLAPS. David G. Koenig. July 1956. 52p. diagrs., photo., tabs. (NACA RM A56D23)

APPLICATION OF AREA SUCTION TO LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 44° SWEPT-WING MODEL. Curt A. Holzhauser, Robert K. Martin, and V. Robert Page. September 1956. 66p. diagrs., photos., tabs. (NACA RM A56F01)

LOW-SPEED PRESSURE-DISTRIBUTION INVESTIGATION OF A THIN-DELTA-WING–FUSELAGE MODEL WITH DOUBLE SLOTTED FLAP, EXTENDED DOUBLE SLOTTED FLAP, AND CANARD. Delwin R. Croom and Jarrett K. Huffman. November 1956. 104p. diagrs., tabs. (NACA RM L56I11)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. 1957. iii, 29p. diagrs. (NACA Rept. 1318. Supersedes TN 3717)

AIR LOAD DISTRIBUTIONS ON A FLAPPED WING RESULTING FROM LEADING-EDGE AND TRAILING-EDGE BLOWING. H. Clyde McLemore. June 1957. 9p. diagrs. (NACA RM L57D23b)

ANALYSIS OF WING LOADS MEASURED ON A FLEXIBLE SWEPT-WING JET BOMBER DURING PUSH-PULL MANEUVERS. Patrick A. Gainer and Paul W. Harper. July 1957. 37p. diagrs., photo., tabs. (NACA RM L57E28)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. July 1957. 31p. diagrs., tab. (NACA TN 4040. Supersedes RM A55D07)

LOW-SPEED BOUNDARY-LAYER-CONTROL INVESTIGATION ON A THIN RECTANGULAR SEMI-SPAN WING WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Delwin R. Croom and Thomas R. Turner. January 1958. 213p. diagrs., tabs. (NACA RM L57J15)

EFFECT OF ANGLE OF ATTACK AND THICKNESS ON AERODYNAMIC COEFFICIENTS OF A RIGID WING OSCILLATING AT VERY LOW FREQUENCIES IN TWO-DIMENSIONAL SUPERSONIC FLOW. Frank S. Malvestuto, Jr., and Julia M. Goodwin. January 1958. 65p. diagrs. (NACA TN 4069)

CONTRIBUTION OF THE WING PANELS TO THE FORCES AND MOMENTS OF SUPERSONIC WING-BODY COMBINATIONS AT COMBINED ANGLES. J. Richard Spahr. January 1958. 62p. diagrs., photo., tabs. (NACA TN 4146)

SURFACE PRESSURE DISTRIBUTIONS ON A LARGE-SCALE 49° SWEPTBACK WING-BODY-TAIL CONFIGURATION WITH BLOWING APPLIED OVER THE FLAPS AND WING LEADING EDGE. H. Clyde McLemore and Marvin P. Fink. February 1958. 129p. diagrs., photo., tabs. (NACA RM L57K25)

LOW-SUBSONIC INVESTIGATION TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND EFFECTIVENESS OF SPOILERS ON A THIN, LOW-ASPECT-RATIO, UNSWEPT, UNTAPERED, SEMI-SPAN WING AND ON THE WING WITH LEADING- AND TRAILING-EDGE FLAPS. Delwin R. Croom. April 1958. 133p. diagrs., tabs. (NACA RM L58B05)

EXPERIMENTAL STUDY OF THE EQUIVALENCE OF TRANSONIC FLOW ABOUT SLENDER CONE-CYLINDERS OF CIRCULAR AND ELLIPTIC CROSS SECTION. William A. Page. April 1958. 45p. diagrs., photos., tab. (NACA TN 4233)

(4.1.1.1.2) Maneuvering

THE STATIC AND DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF SOME SUPERSONIC AIRCRAFT CONFIGURATIONS. Jesse L. Mitchell. January 1952. 19p. diagrs. (NACA RM L52A10a)

DAMPING IN PITCH OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS. Murray Tobak. April 1953. ii, 107p. diagrs. (NACA RM A52L04a)

TRANSONIC FLIGHT MEASUREMENT OF THE AERODYNAMIC LOAD ON THE EXTENDED SLAT OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. James R. Peele. August 1953. 34p. diagrs., photos., tab. (NACA RM L53F29)

NOTES ON DAMPING IN ROLL AND LOAD DISTRIBUTIONS IN ROLL AT HIGH ANGLES OF ATTACK AND HIGH SUBSONIC SPEED. Richard E. Kuhn. August 1953. 18p. diagrs., tab. (NACA RM L53G13a)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

WING-LOAD MEASUREMENTS AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Glenn H. Robinson, George E. Cothren, Jr., and Chris Pembo. March 1955. 20p. diagrs., photos., tab. (NACA RM H54L27)

STUDY OF SOME EFFECTS OF STRUCTURAL FLEXIBILITY ON THE LONGITUDINAL MOTIONS AND LOADS AS OBTAINED FROM FLIGHT MEASUREMENTS OF A SWEPT-WING BOMBER. James J. Donegan and Carl R. Huss. May 1955. 53p. diagrs., tabs. (NACA RM L54L16)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

EFFECT OF FUSELAGE AIR BRAKES ON THE LONGITUDINAL STABILITY CHARACTERISTICS OF A SWEPT-WING FIGHTER MODEL AT TRANSONIC SPEEDS. Donald D. Arabian. April 1956. 22p. diagrs., photos. (NACA RM L56A25a)

SOME NOTES ON THE VIOLENT LATERAL-LONGITUDINAL COUPLING MOTIONS OF THE DOUGLAS X-3 AIRPLANE IN AILERON ROLLS. Ralph W. Stone, Jr. May 1956. 35p. diagrs., tab. (NACA RM L56C15)

ANALYSIS OF WING LOADS MEASURED ON A FLEXIBLE SWEPT-WING JET BOMBER DURING PUSH-PULL MANEUVERS. Patrick A. Gainer and Paul W. Harper. July 1957. 37p. diagrs., photo., tabs. (NACA RM L57E28)

NOTES ON A LARGE-SCALE STATISTICAL PROGRAM FOR THE ESTABLISHMENT OF MANEUVER-LOADS DESIGN CRITERIA FOR MILITARY AIRPLANES. John P. Mayer, Ralph W. Stone, Jr., and Harold A. Hamer. July 1957. 57p. diagrs., tabs. (NACA RM L57E30)

EFFECT OF ANGLE OF ATTACK AND THICKNESS ON AERODYNAMIC COEFFICIENTS OF A RIGID WING OSCILLATING AT VERY LOW FREQUENCIES IN TWO-DIMENSIONAL SUPERSONIC FLOW. Frank S. Malvestuto, Jr., and Julia M. Goodwin. January 1958. 65p. diagrs. (NACA TN 4069)

ANALYTICAL INVESTIGATION OF ACCELERATION RESTRICTION IN A FIGHTER AIRPLANE WITH AN AUTOMATIC CONTROL SYSTEM. James T. Matthews, Jr. January 1958. 24p. diagrs. (NACA TN 4179)

EFFECT OF THE PROXIMITY OF THE WING FIRST-BENDING FREQUENCY AND THE SHORT-PERIOD FREQUENCY ON THE AIRPLANE DYNAMIC-RESPONSE FACTOR. Carl R. Huss and James J. Donegan. June 1958. 45p. diagrs. (NACA TN 4250)

(4.1.1.1.3) Gust Loads

A THEORETICAL INVESTIGATION OF THE EFFECT OF AUXILIARY DAMPING ON THE LONGITUDINAL RESPONSE OF A TRANSONIC BOMBER CONFIGURATION IN FLIGHT THROUGH CONTINUOUS TURBULENCE. T. F. Bridgland, Jr. March 1955. 26p. diagrs., tab. (NACA RM L54K15a)

EXPERIMENTAL RESULTS FROM A TEST IN ROUGH AIR AT HIGH SUBSONIC SPEEDS OF A TAILLESS ROCKET MODEL HAVING CRUCIFORM TRIANGULAR WINGS, AND A NOTE ON THE CALCULATION OF MEAN SQUARE LOADS OF AIRCRAFT IN CONTINUOUS ROUGH AIR. A. James Vitale and Jesse L. Mitchell. April 1956. 25p. diagrs., photo., tab. (NACA RM L55L28)

RESULTS FROM AN INVESTIGATION IN ROUGH AIR AT MACH NUMBERS FROM 0.84 TO 1.67 OF A TAILLESS ROCKET MODEL HAVING 60° TRIANGULAR WINGS. A. James Vitale. July 1956. 16p. diagrs., photo., tab. (NACA RM L56F07a)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. 1957. ii, 19p. diagrs., tabs. (NACA Rept. 1321. Supersedes TN 3864.)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING BENDING STRAINS IN ROUGH AIR. Thomas L. Coleman, Harry Press, and C. C. Shufflebarger. July 1957. 22p. diagrs. (NACA TN 4055)

AIRPLANE MEASUREMENTS OF ATMOSPHERIC TURBULENCE FOR ALTITUDES BETWEEN 20,000 AND 55,000 FEET OVER THE WESTERN PART OF THE UNITED STATES. Thomas L. Coleman and Emilie C. Coe. August 1957. 16p. diagrs., photo., tab. (NACA RM L57G02)

A CORRELATION OF RESULTS OF A FLIGHT INVESTIGATION WITH RESULTS OF AN ANALYTICAL STUDY OF EFFECTS OF WING FLEXIBILITY ON WING STRAINS DUE TO GUSTS. C. C. Shufflebarger, Chester B. Payne, and George L. Cahen. August 1957. 40p. diagrs., tab. (NACA TN 4071)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING STRAINS IN ROUGH AIR AT 5,000 FEET AS DETERMINED BY FLIGHT TESTS OF A LARGE SWEPT-WING AIRPLANE. Richard H. Rhyne and Harold N. Murrow. September 1957. 32p. diagrs., photo., tabs. (NACA TN 4107)

ON THE MINIMIZATION OF AIRPLANE RESPONSES TO RANDOM GUSTS. Murray Tobak. October 1957. 71p. diagrs. (NACA TN 3290)

ANALYSIS OF OPERATIONAL AIRLINE DATA TO SHOW THE EFFECTS OF AIRBORNE WEATHER RADAR ON THE GUST LOADS AND OPERATING PRACTICES OF TWIN-ENGINE SHORT-HAUL TRANSPORT AIRPLANES. Martin R. Copp and Walter G. Walker. November 1957. 18p. diagrs., tabs. (NACA TN 4129)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. VARIABLE-AMPLITUDE TESTS WITH A GUST-LOADS SPECTRUM. Richard E. Whaley. November 1957. 43p. diagrs., photos., tabs. (NACA TN 4132)

INVESTIGATION OF DEFLECTORS AS GUST ALLEVIATORS ON A 0.09-SCALE MODEL OF THE BELL X-5 AIRPLANE WITH VARIOUS WING SWEEP ANGLES FROM 20° TO 60° AT MACH NUMBERS FROM 0.40 TO 0.90. Delwin R. Croom and Jarrett K. Huffman. November 1957. 28p. diagrs. (NACA TN 4175)

AN ANALYTICAL INVESTIGATION OF THE GUST-ALLEVIATING PROPERTIES OF A SIMPLE PITCH DAMPER. Norman L. Crabill. December 1957. 47p. diagrs., tab. (NACA TN 4173)

ANALYTICAL INVESTIGATION OF ACCELERATION RESTRICTION IN A FIGHTER AIRPLANE WITH AN AUTOMATIC CONTROL SYSTEM. James T. Matthews, Jr. January 1958. 24p. diagrs. (NACA TN 4179)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING STRAINS IN ROUGH AIR AT 35,000 FEET AS DETERMINED BY A FLIGHT INVESTIGATION OF A LARGE SWEPT-WING AIRPLANE. Richard H. Rhyne. January 1958. 23p. diagrs., tab. (NACA TN 4198)

A METHOD FOR THE CALCULATION OF THE LATERAL RESPONSE OF AIRPLANES TO RANDOM TURBULENCE. John M. Eggleston and William H. Phillips. February 1958. 34p. diagrs., tab. (NACA TN 4196)

SUMMARY OF LOCATIONS, EXTENTS, AND INTENSITIES OF TURBULENT AREAS ENCOUNTERED DURING FLIGHT INVESTIGATIONS OF THE JET STREAM FROM JANUARY 7, 1957 TO APRIL 28, 1957. Martin R. Copp. March 1958. 8p. tab. (NACA RM L57L12)

AN EVALUATION OF EFFECTS OF FLEXIBILITY ON WING STRAINS IN ROUGH AIR FOR A LARGE SWEPT-WING AIRPLANE BY MEANS OF EXPERIMENTALLY DETERMINED FREQUENCY-RESPONSE FUNCTIONS WITH AN ASSESSMENT OF RANDOM-PROCESS TECHNIQUES EMPLOYED. Thomas L. Coleman, Harry Press, and May T. Meadows. July 1958. ii, 74p. diagrs., photo., tabs. (NACA TN 4291)

EXPERIMENTAL MEASUREMENTS OF THE EFFECTS OF AIRPLANE MOTIONS ON WING AND TAIL ANGLES OF ATTACK OF A SWEPT-WING BOMBER IN ROUGH AIR. Jerome N. Engel. August 1958. 25p. diagrs., photo., tabs. (NACA TN 4307)

MEASUREMENTS OF THE MOTIONS OF A LARGE SWEPT-WING AIRPLANE IN ROUGH AIR. Richard H. Rhyne. September 1958. 22p. diagrs., photo., tabs. (NACA TN 4310)

AN APPROACH TO THE PROBLEM OF ESTIMATING SEVERE AND REPEATED GUST LOADS FOR MISSILE OPERATIONS. Harry Press and Roy Steiner. September 1958. 44p. diagrs., tab. (NACA TN 4332)

(4.1.1.1.4)
Buffeting Loads

A SYSTEMATIC STUDY OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF THREE 45° SWEPTBACK WINGS. H. Neale Kelly. October 1955. 113p. diagrs., photo., tabs. (NACA RM L55H19)

INVESTIGATION OF UNSTEADY FLOW PAST FOUR NACA 6-PERCENT-THICK AIRFOIL SECTIONS. Charles L. Ladson and Walter F. Lindsey. July 1956. 17p. diagrs. (NACA RM L56E14)

A SEMIEMPIRICAL PROCEDURE FOR ESTIMATING WING BUFFET LOADS IN THE TRANSONIC REGION. T. H. Skopinski and Wilber B. Huston. September 1956. 22p. diagrs., tab. (NACA RM L56E01)

WIND-TUNNEL MEASUREMENTS OF WING BUFFETING ON 1/16-SCALE MODEL OF DOUGLAS D-558-II RESEARCH AIRPLANE. William B. Kemp, Jr., and Thomas J. King, Jr. September 1956. 34p. diagrs., photos., tabs. (NACA RM L56G31)

MEASUREMENT OF AERODYNAMIC FORCES FOR VARIOUS MEAN ANGLES OF ATTACK ON AN AIRFOIL OSCILLATING IN PITCH AND ON TWO FINITE-SPAN WINGS OSCILLATING IN BENDING WITH EMPHASIS ON DAMPING IN THE STALL. A. Gerald Rainey. 1957. iii, 33p. diagrs., photos., (NACA Rept. 1305. Supersedes TN 3643)

FLIGHT DATA PERTINENT TO BUFFETING AND MAXIMUM NORMAL-FORCE COEFFICIENT OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Thomas F. Baker, James A. Martin, and Betty J. Scott. November 1957. 41p. diagrs., photo., tabs. (NACA RM H57H09)

(4.1.1.2)
TAIL

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. DETERMINATION OF THE AERODYNAMIC CENTER AND ZERO-LIFT PITCHING-MOMENT COEFFICIENT OF THE WING-FUSELAGE COMBINATION BY MEANS OF TAIL-LOAD MEASUREMENTS IN THE MACH NUMBER RANGE FROM 0.37 TO 0.87. John P. Mayer, George M. Valentine, and Geraldine C. Mayer. July 11, 1950. 27p. diagrs., photos., tab. (NACA RM L50D10)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF WING LOADS AT MACH NUMBERS UP TO 0.87. John P. Mayer, George M. Valentine, and Beverly J. Swanson. December 26, 1950. 35p. diagrs., photos., tab. (NACA RM L50H16)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF THE DISTRIBUTION OF THE AERODYNAMIC LOAD AMONG THE WING, FUSELAGE, AND HORIZONTAL TAIL AT MACH NUMBERS UP TO 0.87. John P. Mayer and George M. Valentine. January 19, 1951. 33p. diagrs., photos., tab. (NACA RM L50J13)

DIVISION OF LOAD AMONG THE WING, FUSELAGE, AND TAIL OF AIRCRAFT. John P. Mayer and Clarence L. Gillis. May 29, 1951. 14p. diagrs. (NACA RM L51E14a)

AN INVESTIGATION OF A SUPERSONIC AIRCRAFT CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. ESTIMATED DOWNWASH ANGLES DERIVED FROM PRESSURE MEASUREMENTS ON THE TAIL AT MACH NUMBERS OF 1.40 AND 1.59. Frederick C. Grant and John P. Gapcynski. March 1952. 27p. diagrs., photos., tabs. (NACA RM L51L17)

JET EFFECTS ON PRESSURE LOADING OF ALL-MOVABLE HORIZONTAL STABILIZER. Alfred S. Valerino. June 1954. 27p. diagrs., photo., tab. (NACA RM E54C24)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

JET EFFECTS ON LONGITUDINAL TRIM OF AN AIRPLANE CONFIGURATION MEASURED AT MACH NUMBERS BETWEEN 1.2 AND 1.8. Robert F. Peck. January 1955. 17p. diagrs., photos. (NACA RM L54J29a)

FLIGHT EXPERIENCE OF INERTIA COUPLING IN ROLLING MANEUVERS. Joseph Weil, Ordway B. Gates, Jr., Richard D. Banner, and Albert E. Kuhl. July 1955. 12p. diagrs. (NACA RM H55E17b)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF FUSELAGE CROSS-SECTION SHAPE AND WING HEIGHT ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A MODEL HAVING A 45° SWEPT WING. Thomas J. King, Jr. February 1956. 61p. diagrs., photo. (NACA RM L55J25)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF HORIZONTAL-TAIL LOCATION ON LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING A SWEPTBACK WING IN A HIGH LOCATION. H. Norman Silvers and Thomas J. King, Jr. April 1956. 46p. diagrs., tab. (NACA RM L56B10)

DETERMINATION OF VORTEX PATHS BY SERIES EXPANSION TECHNIQUE WITH APPLICATION TO CRUCIFORM WINGS. Alberta Y. Alksne. 1957. iii, 13p. diagrs., photos. (NACA Rept. 1311. Supersedes TN 3670)

HORIZONTAL-TAIL PARAMETERS AS DETERMINED FROM FLIGHT-TEST TAIL LOADS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. January 1957. 42p. diagrs., photos., tabs. (NACA RM L56J02)

AN ANALYSIS OF VERTICAL-TAIL LOADS MEASURED IN FLIGHT ON A SWEPT-WING BOMBER AIRPLANE. William A. McGowan and T. V. Cooney. May 1957. 53p. diagrs., photo., tabs. (NACA RM L57B19)

ANALYSIS OF HORIZONTAL-TAIL LOADS IN PITCHING MANEUVERS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr. December 1957. 58p. diagrs., photo., tabs. (NACA TN 4191)

(4.1.1.2.1) Steady Loads

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

A DISCUSSION OF RECENT WIND-TUNNEL STUDIES RELATING TO THE PROBLEM OF ESTIMATING VERTICAL- AND HORIZONTAL-TAIL LOADS. Richard E. Kuhn, Joseph M. Hallissy, Jr., and Ralph W. Stone, Jr. July 1955. 20p. diagrs., photos. (NACA RM L55E16a)

SUMMARY AND ANALYSIS OF HORIZONTAL-TAIL CONTRIBUTION TO LONGITUDINAL STABILITY OF SWEPT-WING AIRPLANES AT LOW SPEEDS. Robert H. Neely and Roland F. Griner. August 1955. ii, 133p. diagrs., tabs. (NACA RM L55E23a)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF STORE AND HORIZONTAL-TAIL LOADS AND SOME EFFECTS OF FUSELAGE-AFTERBODY MODIFICATIONS ON A SWEPT-WING FIGHTER AIRPLANE. Joseph M. Hallissy, Jr., and Louis Kudlacik. April 1956. 79p. diagrs., photos. (NACA RM L56A26)

EFFECT OF AIRPLANE CONFIGURATION ON STATIC STABILITY AT SUBSONIC AND TRANSONIC SPEEDS. Edward C. Polhamus and Joseph M. Hallissy, Jr. May 1956. 17p. diagrs. (NACA RM L56A09a)

CONTRIBUTION OF THE WING PANELS TO THE FORCES AND MOMENTS OF SUPERSONIC WING-BODY COMBINATIONS AT COMBINED ANGLES. J. Richard Spahr. January 1958. 62p. diagrs., photo., tabs. (NACA TN 4146)

(4.1.1.2.2) Maneuvering

SOME EFFECTS OF A SONIC JET EXHAUST ON THE LOADING OVER A YAWED FIN AT A MACH NUMBER OF 3.03. John E. Hatch, Jr., and William M. Savelle. January 1953. 12p. diagrs., photo. (NACA RM L52L02a)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

FLIGHT MEASUREMENTS OF HORIZONTAL-TAIL LOADS ON THE DOUGLAS X-3 RESEARCH AIRPLANE. Harriet J. Stephenson. April 1956. 33p. diagrs., photo., tab. (NACA RM H56A23)

SOME NOTES ON THE VIOLENT LATERAL-LONGITUDINAL COUPLING MOTIONS OF THE DOUGLAS X-3 AIRPLANE IN AILERON ROLLS. Ralph W. Stone, Jr. May 1956. 35p. diagrs., tab. (NACA RM L56C15)

ANALYSIS OF THE VERTICAL-TAIL LOADS MEASURED DURING A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE DOUGLAS X-3 RESEARCH AIRPLANE. William L. Marcy, Harriet J. Stephenson, and Thomas V. Cooney. November 1956. 32p. diagrs., photo., tab. (NACA RM H56H08)

NOTES ON A LARGE-SCALE STATISTICAL PROGRAM FOR THE ESTABLISHMENT OF MANEUVER-LOADS DESIGN CRITERIA FOR MILITARY AIRPLANES. John P. Mayer, Ralph W. Stone, Jr., and Harold A. Hamer. July 1957. 57p. diagrs., tabs. (NACA RM L57E30)

(4.1.1.2.3) Buffeting and Gust

FLIGHT-DETERMINED BUFFET BOUNDARIES OF TEN AIRPLANES AND COMPARISONS WITH FIVE BUFFETING CRITERIA. Burnett L. Gadeberg and Howard L. Ziff. January 5, 1951. 44p. diagrs., photo., tab. (NACA RM A50I27)

FLIGHT MEASUREMENTS OF THE HORIZONTAL-TAIL LOADS ON A SWEPT-WING FIGHTER AIRPLANE AT TRANSONIC SPEEDS. Melvin Sadoff. November 1953. 58p. diagrs., photo., tab. (NACA RM A53G10)

MEASURED DATA PERTAINING TO BUFFETING AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas F. Baker. February 1954. 16p. diagrs., photos., tab. (NACA RM L53L10)

THE EFFECTS OF WING-MOUNTED EXTERNAL STORES ON THE TRIM, BUFFET, AND DRAG CHARACTERISTICS OF A ROCKET-PROPELLED MODEL HAVING A 45° SWEPTBACK WING. Allen B. Henning. April 1954. 25p. diagrs., photos., tabs. (NACA RM L54B19)

A LIMITED FLIGHT INVESTIGATION OF THE EFFECT OF DYNAMIC VIBRATION ABSORBERS ON THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. Jim Rogers Thompson and John E. Yeates, Jr. January 1955. 29p. diagrs., photos. (NACA RM L54K02)

INVESTIGATION OF UNSTEADY FLOW PAST FOUR NACA 6-PERCENT-THICK AIRFOIL SECTIONS. Charles L. Ladson and Walter F. Lindsey. July 1956. 17p. diagrs. (NACA RM L56E14)

AN ANALYTICAL INVESTIGATION OF THE GUST-ALLEVIATING PROPERTIES OF A SIMPLE PITCH DAMPER. Norman L. Crabill. December 1957. 47p. diagrs., tab. (NACA TN 4173)

EXPERIMENTAL MEASUREMENTS OF THE EFFECTS OF AIRPLANE MOTIONS ON WING AND TAIL ANGLES OF ATTACK OF A SWEPT-WING BOMBER IN ROUGH AIR. Jerome N. Engel. August 1958. 25p. diagrs., photo., tabs. (NACA TN 4307)

(4.1.1.3) BODIES

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF WING LOADS AT MACH NUMBERS UP TO 0.87. John P. Mayer, George M. Valentine, and Beverly J. Swanson. December 26, 1950. 35p. diagrs., photos., tab. (NACA RM L50H16)

INVESTIGATION OF THE AERODYNAMIC EFFECTS OF AN EXTERNAL STORE IN COMBINATION WITH 60° DELTA AND LOW-ASPECT-RATIO TAPERED WINGS AT A MACH NUMBER OF 1.9. Ellery B. May, Jr. January 9, 1951. 46p. diagrs., photos. (NACA RM L50K03)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF THE DISTRIBUTION OF THE AERODYNAMIC LOAD AMONG THE WING, FUSELAGE, AND HORIZONTAL TAIL AT MACH NUMBERS UP TO 0.87. John P. Mayer and George M. Valentine. January 19, 1951. 33p. diagrs., photos., tab. (NACA RM L50J13)

DIVISION OF LOAD AMONG THE WING, FUSELAGE, AND TAIL OF AIRCRAFT. John P. Mayer and Clarence L. Gillis. May 29, 1951. 14p. diagrs. (NACA RM L51E14a)

INVESTIGATION AT MACH NUMBER 1.91 OF SIDE AND BASE PRESSURE DISTRIBUTIONS OVER CONICAL BOATTAILS WITHOUT AND WITH JET FLOW ISSUING FROM BASE. Edgar M. Cortright, Jr., and Albert H. Schroeder. September 1951. 59p. diagrs., photos. (NACA RM E51F26)

BASIC PRESSURE MEASUREMENTS ON A FUSELAGE AND A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT TRANSONIC SPEEDS IN THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Donald L. Loving and Claude V. Williams. September 1951. 59p. diagrs., photos. (NACA RM L51F05)

AERODYNAMIC LOADING CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A WING OF 45° SWEEPBACK MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Donald L. Loving and Claude V. Williams. May 1952. 58p. diagrs., photos., tab. (NACA RM L52B27)

A PRESSURE-DISTRIBUTION INVESTIGATION OF A FINENESS-RATIO-12.2 PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT M = 1.59 AND ANGLES OF ATTACK UP TO 36°. Morton Cooper, John P. Gapcynski, and Lowell E. Hasel. October 1952. 89p. diagrs., photos., tabs. (NACA RM L52G14a)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF BODIES MOUNTED FROM THE WING OF AN UNSWEPT-WING-FUSELAGE MODEL, INCLUDING MEASUREMENTS OF BODY LOADS. H. Norman Silvers and Thomas J. King, Jr. November 1952. 37p. diagrs., photos., tabs. (NACA RM L52J08)

INVESTIGATION AT TRANSONIC SPEEDS OF A FORWARD-LOCATED UNDERSLUNG AIR INLET ON A BODY OF REVOLUTION. P. Kenneth Pierpont and John A. Braden. January 1953. 109p. diagrs., photos., tabs. (NACA RM L52K17)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

CORRELATION BY THE HYPERSONIC SIMILARITY RULE OF PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR MINIMUM-DRAG NOSE SHAPES AT ZERO ANGLE OF ATTACK. Leland H. Jorgensen. August 1953. 23p. diagrs. (NACA RM A53F12)

THE EFFECT OF A CHANGE IN BODY SHAPE ON THE LOADING OF A 45° SWEPTBACK WING-BODY COMBINATION AT TRANSONIC SPEEDS. Donald L. Loving. April 1954. 67p. diagrs., photo. (NACA RM L54B09)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF FINNED AND UNFINNED BODIES MOUNTED AT VARIOUS LOCATIONS FROM THE WINGS OF UNSWEPT, AND SWEPT-WING—FUSELAGE MODELS, INCLUDING MEASUREMENTS OF BODY LOADS. William J. Alford, Jr., and H. Norman Silvers. April 1954. 93p. diagrs., photos., tabs. (NACA RM L54B18)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL HAVING A THIN UNSWEPT WING OF ASPECT RATIO 3.1. Maurice D. White. August 1954. 41p. diagrs., photo., tabs. (NACA RM A54E12)

AN INVESTIGATION OF THE EFFECTS OF A GEOMETRIC TWIST ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING-BODY CONFIGURATION AT TRANSONIC SPEEDS. Claude V. Williams. October 1954. 87p. diagrs., photos., tabs. (NACA RM L54H18)

EXPERIMENTAL INVESTIGATION OF DRAG OF AFTERBODIES WITH EXITING JET AT HIGH SUBSONIC MACH NUMBERS. Reino J. Salmi. November 1954. 28p. diagrs., photos. (NACA RM E54I13)

EFFECTS OF SOME EXTERNAL-STORE MOUNTING ARRANGEMENTS AND STORE SHAPES ON THE BUFFET AND DRAG CHARACTERISTICS OF WINGLESS ROCKET-POWERED MODELS AT MACH NUMBERS FROM 0.7 TO 1.4. Homer P. Mason and Allen B. Henning. December 1954. 45p. diagrs., photos., tabs. (NACA RM L54I20a)

FLIGHT EXPERIENCE WITH TWO HIGH-SPEED AIRPLANES HAVING VIOLENT LATERAL-LONGITUDINAL COUPLING IN AILERON ROLLS. NACA High-Speed Flight Station. February 1955. 30p. diagrs., photos., tabs. (NACA RM H55A13)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Loren G. Bright. March 1955. 40p. diagrs., photos., tabs. (NACA RM A54L27)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF TAPER RATIO AND BODY INDENTATION ON THE AERODYNAMIC LOADING CHARACTERISTICS OF A 45° SWEPTBACK WING IN THE PRESENCE OF A BODY. James B. Delano and John P. Mugler, Jr. April 1955. 53p. diagrs., photos., tab. (NACA RM L54L28)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 2. Maurice D. White. September 1955. 39p. diagrs., photo., tabs. (NACA RM A55F21)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A 60° DELTA WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. John P. Mugler, Jr. September 1955. 30p. diagrs., photos., tab. (NACA RM L55G11)

FLIGHT MEASUREMENTS OF THE LOADS AND MOMENTS ON AN EXTERNAL STORE MOUNTED UNDER THE WING OF A SWEPT-WING FIGHTER-TYPE AIRPLANE DURING YAWING AND ROLLING MANEUVERS. Harold A. Hamer and Thomas C. O'Bryan. September 1955. 37p. diagrs., photo., tab. (NACA RM L55G22)

AERODYNAMIC LOADS ON AN EXTERNAL STORE ADJACENT TO A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.70 TO 1.96, INCLUDING AN EVALUATION OF TECHNIQUES USED. Lawrence D. Guy and William M. Hadaway. November 1955. 109p. diagrs., photo., tab. (NACA RM L55H12)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC LOADING CHARACTERISTICS OF A HIGHLY TAPERED UNSWEPT WING IN THE PRESENCE OF A BODY WITH AND WITHOUT INDENTATION. Joseph D. Brooks. February 1956. 30p. diagrs., photos., tab. (NACA RM L55J20)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SOME EFFECTS OF SIDESLIP ON THE AERODYNAMIC LOADS ON FINNED AND UNFINNED BODIES MOUNTED FROM THE WING OF A SWEPT-WING–FUSELAGE MODEL. Thomas J. King, Jr. April 1956. 50p. diagrs., tabs. (NACA RM L56A24)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF STORE AND HORIZONTAL-TAIL LOADS AND SOME EFFECTS OF FUSELAGE-AFTERBODY MODIFICATIONS ON A SWEPT-WING FIGHTER AIRPLANE. Joseph M. Hallissy, Jr., and Louis Kudlacik. April 1956. 79p. diagrs., photos. (NACA RM L56A26)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A HEATED PROPULSIVE JET ON THE PRESSURE DISTRIBUTION ALONG A FUSELAGE OVERHANG. Elden S. Cornette and Donald H. Ward. April 1956. 42p. diagrs., photos., tab. (NACA RM L56A27)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. 1957. ii, 43p. diagrs., photo., tabs. (NACA Rept. 1327. Supersedes TN 3738)

FLIGHT INVESTIGATION AND THEORETICAL CALCULATIONS OF THE FUSELAGE DEFORMATIONS OF A SWEPT-WING BOMBER DURING PUSH-PULL MANEUVERS. Alton P. Mayo. March 1957. 51p. diagrs., photo., tabs. (NACA RM L56L05)

PRESSURE DISTRIBUTIONS AT TRANSONIC SPEEDS FOR PARABOLIC-ARC BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 10, 12, AND 14. Robert A. Taylor and John B. McDevitt. March 1958. 80p. diagrs., photo. (NACA TN 4234)

PRESSURE DISTRIBUTIONS AT TRANSONIC SPEEDS FOR SLENDER BODIES HAVING VARIOUS AXIAL LOCATIONS OF MAXIMUM DIAMETER. John B. McDevitt and Robert A. Taylor. July 1958. 112p. diagrs., photo. (NACA TN 4280)

FORCE AND PRESSURE MEASUREMENTS AT TRANSONIC SPEEDS FOR SEVERAL BODIES HAVING ELLIPTICAL CROSS SECTIONS. John B. McDevitt and Robert A. Taylor. September 1958. 152p. diagrs., photo., tab. (NACA TN 4362)

(4.1.1.4) ROTATING WINGS

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE IN FORWARD FLIGHT. John P. Rabbott, Jr., and Gary B. Churchill. October 1956. 65p. diagrs., photos., tabs. (NACA RM L56I07)

FLIGHT INVESTIGATION OF EFFECTS OF ATMOSPHERIC TURBULENCE AND MODERATE MANEUVERS ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. February 1958. 34p. diagrs., photo., tab. (NACA TN 4203)

ANALYSIS OF HARMONIC FORCES PRODUCED AT HUB BY IMBALANCES IN HELICOPTER ROTOR BLADES. M. Morduchow and A. Muzyka, Polytechnic Institute of Brooklyn. April 1958. 37p. diagrs. (NACA TN 4226)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF FLAT PLATES AND CYLINDERS IN THE SLIPSTREAM OF A HOVERING ROTOR. John W. McKee and Rodger L. Naeseth. April 1958. 42p. diagrs., photos., tab. (NACA TN 4239)

FLIGHT INVESTIGATION OF EFFECTS OF RETREATING-BLADE STALL ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. May 1958. 23p. diagrs., photo. (NACA TN 4254)

MATRIX METHOD FOR OBTAINING SPANWISE MOMENTS AND DEFLECTIONS OF TORSIONALLY RIGID ROTOR BLADES WITH ARBITRARY LOADINGS. Alton P. Mayo. August 1958. 51p. diagrs., tabs. (NACA TN 4304)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. September 1958. 68p. diagrs., photo., tabs. (NACA TN 4005. Supersedes RM L53D24)

EXPERIMENTAL EVALUATION OF LOW-BAND-PASS LANDING-GEAR SHOCK ABSORBER FOR PULSE LOADINGS. Emanuel Schnitzer. September 1958. 39p. diagrs., photos., tabs. (NACA TN 4387)

(4.1.1.5) AEROELASTICITY

SUMMARY OF SOME EFFECTIVE AERODYNAMIC TWISTING-MOMENT COEFFICIENTS OF VARIOUS WING-CONTROL CONFIGURATIONS AT MACH NUMBERS FROM 0.6 TO 1.7 AS DETERMINED FROM ROCKET-POWERED MODELS. H. Kurt Strass. January 1952. 22p. diagrs., photo., 2 tabs. (NACA RM L51K20)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK-WING-FUSELAGE COMBINATION MEASURED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 27p. diagrs., photos. (NACA RM L52G23)

SOME APPROXIMATE METHODS FOR ESTIMATING THE EFFECTS OF AEROELASTIC BENDING OF ROCKET-PROPELLED MODEL-BOOSTER COMBINATIONS. Richard G. Arbic, George White, and Warren Gillespie, Jr. March 1953. 40p. diagrs., photos., tabs. (NACA RM L53A08)

STUDY OF SOME EFFECTS OF STRUCTURAL FLEXIBILITY ON THE LONGITUDINAL MOTIONS AND LOADS AS OBTAINED FROM FLIGHT MEASUREMENTS OF A SWEPT-WING BOMBER. James J. Donegan and Carl R. Huss. May 1955. 53p. diagrs., tabs. (NACA RM L54L16)

FLIGHT INVESTIGATION AND ANALYSIS OF THE WING DEFORMATIONS ON A SWEPT-WING BOMBER DURING ROLLING MANEUVERS. Alton P. Mayo and John F. Ward. October 1956. 48p. diagrs., photo.. tabs. (NACA RM L56C23a)

LIFT-CURVE SLOPES DETERMINED IN FLIGHT ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. December 1956. 49p. diagrs., photos., tabs. (NACA RM L56E21a)

ON PANEL FLUTTER AND DIVERGENCE OF INFINITELY LONG UNSTIFFENED AND RING-STIFFENED THIN-WALLED CIRCULAR CYLINDERS. Robert W. Leonard and John M. Hedgepeth. 1957. ii, 19p. diagrs. (NACA Rept. 1302. Supersedes TN 3638)

EXPERIMENTAL AND PREDICTED LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. 1957. ii, 39p. diagrs., photo., tabs. (NACA Rept. 1330. Supersedes RM A54H09; TN 3874)

FLIGHT INVESTIGATION AND THEORETICAL CALCULATIONS OF THE FUSELAGE DEFORMATIONS OF A SWEPT-WING BOMBER DURING PUSH-PULL MANEUVERS. Alton P. Mayo. March 1957. 51p. diagrs., photo., tabs. (NACA RM L56L05)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING BENDING STRAINS IN ROUGH AIR. Thomas L. Coleman, Harry Press, and C. C. Shufflebarger. July 1957. 22p. diagrs. (NACA TN 4055)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING STRAINS IN ROUGH AIR AT 5,000 FEET AS DETERMINED BY FLIGHT TESTS OF A LARGE SWEPT-WING AIRPLANE. Richard H. Rhyne and Harold N. Murrow. September 1957. 32p. diagrs., photo., tabs. (NACA TN 4107)

ANALYSIS OF HORIZONTAL-TAIL LOADS IN PITCHING MANEUVERS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr. December 1957. 58p. diagrs., photo., tabs. (NACA TN 4191)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING STRAINS IN ROUGH AIR AT 35,000 FEET AS DETERMINED BY A FLIGHT INVESTIGATION OF A LARGE SWEPT-WING AIRPLANE. Richard H. Rhyne. January 1958. 23p. diagrs., tab. (NACA TN 4198)

MEASURED AND PREDICTED DYNAMIC RESPONSE CHARACTERISTICS OF A FLEXIBLE AIRPLANE TO ELEVATOR CONTROL OVER A FREQUENCY RANGE INCLUDING THREE STRUCTURAL MODES. Henry A. Cole, Jr., and Euclid C. Holleman. February 1958. 81p. diagrs., photo., tabs. (NACA TN 4147)

EFFECT OF THE PROXIMITY OF THE WING FIRST-BENDING FREQUENCY AND THE SHORT-PERIOD FREQUENCY ON THE AIRPLANE DYNAMIC-RESPONSE FACTOR. Carl R. Huss and James J. Donegan. June 1958. 45p. diagrs. (NACA TN 4250)

AN EVALUATION OF EFFECTS OF FLEXIBILITY ON WING STRAINS IN ROUGH AIR FOR A LARGE SWEPT-WING AIRPLANE BY MEANS OF EXPERIMENTALLY DETERMINED FREQUENCY-RESPONSE FUNCTIONS WITH AN ASSESSMENT OF RANDOM-PROCESS TECHNIQUES EMPLOYED. Thomas L. Coleman, Harry Press, and May T. Meadows. July 1958. ii, 74p. diagrs., photo., tabs. (NACA TN 4291)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF AERODYNAMIC FORCES AND MOMENTS ON LOW-ASPECT-RATIO WINGS UNDERGOING FLAPPING OSCILLATIONS. Donald S. Woolston, Sherman A. Clevenson, and Sumner A. Leadbetter. August 1958. 25p. diagrs., tab. (NACA TN 4302)

MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A SIMPLIFIED T-TAIL OSCILLATING IN YAW ABOUT THE FIN MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. September 1958. 20p. diagrs., tab. (NACA TN 4402)

(4.1.2) LANDING

RESULTS OF MEASUREMENTS MADE DURING THE APPROACH AND LANDING OF SEVEN HIGH-SPEED RESEARCH AIRPLANES. Wendell H. Stillwell. February 1955. 25p. diagrs., tab. (NACA RM H54K24)

(4.1.2.1) IMPACT

STATISTICAL MEASUREMENTS OF LANDING CONTACT CONDITIONS OF THE BOEING B-47 AIRPLANE. Joseph J. Kolnick and Garland J. Morris. October 1955. 11p. diagrs., tabs. (NACA RM L55H24)

STATISTICAL MEASUREMENTS OF LANDING CONTACT CONDITIONS OF FIVE MILITARY AIRPLANES DURING ROUTINE DAYTIME OPERATIONS. Norman S. Silsby. August 1956. 17p. diagrs., tabs. (NACA RM L56F21a)

ACCELERATION IN FIGHTER-AIRPLANE CRASHES. Loren W. Acker, Dugald O. Black, and Jacob C. Moser. November 1957. 78p. diagrs., photos. (NACA RM E57G11)

HIGH-SPEED LANDING LOADS MEASURED ON THE DOUGLAS X-3 RESEARCH AIRPLANE. William L. Marcy. February 1958. 24p. diagrs., photo., tabs. (NACA RM H57L06)

ON SOLUTIONS FOR THE TRANSIENT RESPONSE OF BEAMS. Robert W. Leonard. June 1958. 65p. diagrs., tabs. (NACA TN 4244)

EXPERIMENTAL EVALUATION OF LOW-BAND-PASS LANDING-GEAR SHOCK ABSORBER FOR PULSE LOADINGS. Emanuel Schnitzer. September 1958. 39p. diagrs., photos., tabs. (NACA TN 4387)

(4.1.2.1.1) Land

MECHANICAL PROPERTIES OF PNEUMATIC TIRES WITH SPECIAL REFERENCE TO MODERN AIRCRAFT TIRES. Robert F. Smiley and Walter B. Horne. January 1958. 166p. diagrs., photo., tabs. (NACA TN 4110)

STUDY OF GROUND-REACTION FORCES MEASURED DURING LANDING IMPACTS OF A LARGE AIRPLANE. Albert W. Hall, Richard H. Sawyer, and James M. McKay. May 1958. 40p. diagrs., photo., tabs. (NACA TN 4247. Supersedes RM L55E12c)

LANDING AND TAXIING TESTS OVER VARIOUS TYPES OF RUNWAY LIGHTS. Robert C. Dreher and Sidney A. Batterson. August 1958. 39p. diagrs., photos., tabs. (NACA RM L58C28a)

(4.1.2.1.2) Water

COMPARISON WITH THEORY OF LANDING IMPACTS OF A MODEL OF A SEAPLANE INCORPORATING A HYDRO-SKI WITH AND WITHOUT A SHOCK ABSORBER. Edward L. Hoffman. July 1956. 30p. diagrs., photo., tabs. (NACA RM L56D26)

STATISTICAL APPROACH TO THE ESTIMATION OF LOADS AND PRESSURES ON SEAPLANE HULLS FOR ROUTINE OPERATIONS. Roy Steiner. March 1957. 49p. diagrs., tabs. (NACA RM L57A15)

IMPACT-LOADS INVESTIGATION OF CHINE-IMMERSED MODEL HAVING A CIRCULAR-ARC TRANSVERSE SHAPE. Philip M. Edge, Jr. September 1957. 35p. diagrs., photo., tab. (NACA TN 4103)

IMPACT-LOADS INVESTIGATION OF A CHINE-IMMERSED MODEL HAVING A LONGITUDINALLY CURVED BOW AND A V-BOTTOM WITH A DEAD-RISE ANGLE OF 30°. Philip M. Edge, Jr., and John S. Mixson. September 1957. 24p. diagrs., photo., tabs. (NACA TN 4106)

ROUGH-WATER IMPACT-LOAD INVESTIGATION OF A CHINE-IMMERSED V-BOTTOM MODEL HAVING A DEAD-RISE ANGLE OF 10°. Melvin F. Markey and Thomas D. Carpini. October 1957. 32p. diagrs., photos., tab. (NACA TN 4123)

IMPACT ON A COMPRESSIBLE FLUID. (Udar o szhimaemuiu zhidkost,) I. T. Egorov. February 1958. 12p. diagrs. (NACA TM 1413. Translation from Prikladnaia Matematika i Mekhanika, v. 20, no. 1, 1956, p. 67-72)

COMPARISON OF HYDRODYNAMIC-IMPACT ACCELERATION AND RESPONSE FOR SYSTEMS WITH SINGLE AND WITH MULTIPLE ELASTIC MODES. Robert W. Miller. February 1958. 30p. diagrs., photos., tabs. (NACA TN 4194)

HYDRODYNAMIC IMPACT LOADS OF A -20° DEAD-RISE INVERTED-V MODEL AND COMPARISONS WITH LOADS OF A FLAT-BOTTOM MODEL. Philip M. Edge, Jr. August 1958. 36p. diagrs., photo., tabs. (NACA TN 4339)

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. September 1958. 29p. diagrs. (NACA TN 4256. Supersedes RM L54H10)

HYDRODYNAMIC IMPACT LOADS ON 30° AND 60° V-STEP PLAN-FORM MODELS WITH AND WITHOUT DEAD RISE. Philip M. Edge, Jr., and Jean P. Mason. September 1958. 20p. diagrs., photos., tab. (NACA TN 4401)

(4.1.2.2) GROUND-RUN

HIGH-SPEED LANDING LOADS MEASURED ON THE DOUGLAS X-3 RESEARCH AIRPLANE. William L. Marcy. February 1958. 24p. diagrs., photo., tabs. (NACA RM H57L06)

MEASUREMENTS AND POWER SPECTRA OF RUNWAY ROUGHNESS AT AIRPORTS IN COUNTRIES OF THE NORTH ATLANTIC TREATY ORGANIZATION. Wilbur E. Thompson. July 1958. 85p. diagrs. (NACA TN 4303)

LANDING AND TAXIING TESTS OVER VARIOUS TYPES OF RUNWAY LIGHTS. Robert C. Dreher and Sidney A. Batterson. August 1958. 39p. diagrs., photos., tabs. (NACA RM L58C28a)

EXPERIMENTAL EVALUATION OF LOW-BAND-PASS LANDING-GEAR SHOCK ABSORBER FOR PULSE LOADINGS. Emanuel Schnitzer. September 1958. 39p. diagrs., photos., tabs. (NACA TN 4387)

(4.1.2.2.1) Land

CORRELATION, EVALUATION, AND EXTENSION OF LINEARIZED THEORIES FOR TIRE MOTION AND WHEEL SHIMMY. Robert F. Smiley. 1957. v, 48p. diagrs., tab. (NACA Rept. 1299. Supersedes TN 3632)

LOW-SPEED YAWED-ROLLING CHARACTERISTICS AND OTHER ELASTIC PROPERTIES OF A PAIR OF 40-INCH-DIAMETER, 14-PLY-RATING, TYPE VII AIRCRAFT TIRES. Walter B. Horne and Robert F. Smiley. January 1958. 80p. diagrs., photos., tabs. (NACA TN 4109)

MECHANICAL PROPERTIES OF PNEUMATIC TIRES WITH SPECIAL REFERENCE TO MODERN AIRCRAFT TIRES. Robert F. Smiley and Walter B. Horne. January 1958. 166p. diagrs., photo., tabs. (NACA TN 4110)

STUDY OF GROUND-REACTION FORCES MEASURED DURING LANDING IMPACTS OF A LARGE AIRPLANE. Albert W. Hall, Richard H. Sawyer, and James M. McKay. May 1958. 40p. diagrs., photo., tabs. (NACA TN 4247. Supersedes RM L55E12c)

MEASUREMENTS OF GROUND-REACTION FORCES AND VERTICAL CENTER-OF-GRAVITY ACCELERATIONS OF A BOMBER AIRPLANE TAXIING OVER OBSTACLES. James M. McKay, Richard H. Sawyer, and Albert W. Hall. September 1958. 30p. diagrs., photos., tabs. (NACA TN 4400)

LOW TIRE FRICTION AND CORNERING FORCES ON A WET SURFACE. Eziaslav N. Harrin. September 1958. 27p. diagrs., photos. (NACA TN 4406)

(4.1.2.2.2) Water

STATISTICAL APPROACH TO THE ESTIMATION OF LOADS AND PRESSURES ON SEAPLANE HULLS FOR ROUTINE OPERATIONS. Roy Steiner. March 1957. 49p. diagrs., tabs. (NACA RM L57A15)

(4.2)
Vibration and Flutter

FLIGHT-DETERMINED BUFFET BOUNDARIES OF TEN AIRPLANES AND COMPARISONS WITH FIVE BUFFETING CRITERIA. Burnett L. Gadeberg and Howard L. Ziff. January 5, 1951. 44p. diagrs., photo., tab. (NACA RM A50I27)

FLIGHT DETERMINATION OF THE DRAG AND LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A ROCKET-POWERED MODEL OF A 60° DELTA-WING AIRPLANE FROM MACH NUMBERS OF 0.75 TO 1.70. Grady L. Mitcham, Norman L. Crabill, and Joseph E. Stevens. November 1951. 44p. diagrs., photos., tab. (NACA RM L51I04)

SOME MEASUREMENTS OF THE BUFFET REGION OF A SWEPT-WING RESEARCH AIRPLANE DURING FLIGHTS TO SUPERSONIC MACH NUMBERS. Thomas F. Baker. May 1953. 14p. diagrs., photos., tab. (NACA RM L53D06)

RECENT EXPERIENCES WITH FLUTTER FAILURE OF SWEPTBACK, TAPERED WINGS HAVING OUTBOARD, PARTIAL-SPAN SPOILER CONTROLS. H. Kurt Strass and Edward T. Marley. October 1953. 20p. diagrs., photos., tabs. (NACA RM L53H26)

SOME MEASUREMENTS OF BUFFETING ENCOUNTERED BY A DOUGLAS D-558-II RESEARCH AIRPLANE IN THE MACH NUMBER RANGE FROM 0.5 TO 0.95. Thomas F. Baker. November 1953. 22p. diagrs., photos., tabs. (NACA RM L53I17)

MEASURED DATA PERTAINING TO BUFFETING AT SUPERSONIC SPEEDS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE. Thomas F. Baker. February 1954. 16p. diagrs., photos., tab. (NACA RM L53L10)

EFFECTS OF ANGLE OF ATTACK AND AIRFOIL PROFILE ON THE TWO-DIMENSIONAL FLUTTER DERIVATIVES FOR AIRFOILS OSCILLATING IN PITCH AT HIGH SUBSONIC SPEEDS. John A. Wyss and Raymond Herrera. October 1954. 63p. diagrs., photo. (NACA RM A54H12)

EFFECTS OF RIGID SPOILERS ON THE TWO-DIMENSIONAL FLUTTER DERIVATIVES OF AIRFOILS OSCILLATING IN PITCH AT HIGH SUBSONIC SPEEDS. James C. Monfort and John A. Wyss. December 1954. 33p. diagrs., photos., tabs. (NACA RM A54I22)

PRELIMINARY INVESTIGATION OF THE STRENGTH AND ENDURANCE OF PLASTIC-IMPREGNATED FIBERGLASS COMPRESSOR BLADES. Donald F. Johnson and André J. Meyer, Jr. January 1955. 21p. diagrs., photos. (NACA RM E54I27a)

A LIMITED FLIGHT INVESTIGATION OF THE EFFECT OF DYNAMIC VIBRATION ABSORBERS ON THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. Jim Rogers Thompson and John E. Yeates, Jr. January 1955. 29p. diagrs., photos. (NACA RM L54K02)

MEASUREMENT OF AERODYNAMIC FORCES FOR VARIOUS MEAN ANGLES OF ATTACK ON AN AIRFOIL OSCILLATING IN PITCH AND ON TWO FINITE-SPAN WINGS OSCILLATING IN BENDING WITH EMPHASIS ON DAMPING IN THE STALL. A. Gerald Rainey. 1957. iii, 33p. diagrs., photos., (NACA Rept. 1305. Supersedes TN 3643)

AERODYNAMIC FORCES ON A VIBRATING UNSTAGGERED CASCADE. (Luftkräfte an einem schwingenden Gitter.) H. Söhngen. August 1957. 16p. diagrs. (NACA TM 1412. Translation from Zeitschrift fur angewandte Mathematik und Mechanik, v.35, no.3, Mar.1955, p.81-88.)

APPROXIMATE ANALYSIS OF EFFECTS OF LARGE DEFLECTIONS AND INITIAL TWIST ON TORSIONAL STIFFNESS OF A CANTILEVER PLATE SUBJECTED TO THERMAL STRESSES. Richard R. Heldenfels and Louis F. Vosteen. August 1957. 36p. diagrs. (NACA TN 4067)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. May 1958. 45p. diagrs., tabs. (NACA TN 4240. Supersedes RM L53F19)

RESULTS OF AN EXPERIMENTAL INVESTIGATION OF SMALL VISCOUS DAMPERS. Milton A. Silveira, Domenic J. Maglieri, and George W. Brooks. June 1958. 49p. diagrs., photos. (NACA TN 4257)

ANALYTICAL AND EXPERIMENTAL INVESTIGATION OF AERODYNAMIC FORCES AND MOMENTS ON LOW-ASPECT-RATIO WINGS UNDERGOING FLAPPING OSCILLATIONS. Donald S. Woolston, Sherman A. Clevenson, and Sumner A. Leadbetter. August 1958. 25p. diagrs., tab. (NACA TN 4302)

EFFECT OF TEMPERATURE ON DYNAMIC MODULUS OF ELASTICITY OF SOME STRUCTURAL ALLOYS. Louis F. Vosteen. August 1958. 19p. diagrs., tabs. (NACA TN 4348)

(4.2.1)
WINGS AND AILERONS

SOME EXPERIMENTS ON THE FLUTTER OF WINGS WITH SWEEPBACK IN THE TRANSONIC SPEED RANGE UTILIZING ROCKET-PROPELLED VEHICLES. William T. Lauten, Jr., and J. M. Teitelbaum. May 18, 1950. 30p. diagrs., photos., tabs. (NACA RM L50C03a)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF A PLANE WING AND A CAMBERED AND TWISTED WING, BOTH HAVING 45° OF SWEEPBACK AND AN ASPECT RATIO OF 6. George H. Holdaway. May 1953. 49p. diagrs., photos. (NACA RM A53B16)

INVESTIGATION OF WING FLUTTER AT TRANSONIC SPEEDS FOR SIX SYSTEMATICALLY VARIED WING PLAN FORMS. George W. Jones, Jr., and Hugh C. DuBose. August 1953. 32p. diagrs., photos., 3 tabs. (NACA RM L53G10a)

FLUTTER INVESTIGATION OF A TRUE-SPEED DYNAMIC MODEL WITH VARIOUS TIP-TANK CONFIGURATIONS. John L. Sewall, Robert W. Herr, and William B. Igoe. March 1955. 80p. diagrs., photos., tabs. (NACA RM L54I19)

FLUTTER EXPERIENCES WITH THIN POINTED-TIP WINGS DURING FLIGHT TESTS OF ROCKET-PROPELLED MODELS AT MACH NUMBERS FROM 0.8 TO 1.95. Harvey A. Wallskog. April 1955. 32p. diagrs., photos., tabs. (NACA RM L55A14)

EXPERIMENTAL FLUTTER RESULTS FOR CANTILEVER-WING MODELS AT MACH NUMBERS UP TO 3.0. W. J. Tuovila and John Locke McCarty. June 1955. 13p. diagrs., tab. (NACA RM L55E11)

TESTS OF AERODYNAMICALLY HEATED MULTI-WEB WING STRUCTURES IN A FREE JET AT MACH NUMBER 2. TWO ALUMINUM-ALLOY MODELS OF 20-INCH CHORD WITH 0.064- AND 0.081-INCH-THICK SKIN. George E. Griffith, Georgene H. Miltonberger, and Richard Rosecrans. August 1955. 39p. diagrs., photos., tabs. (NACA RM L55F13)

AERODYNAMIC DAMPING AT MACH NUMBERS OF 1.3 AND 1.6 OF A CONTROL SURFACE ON A TWO-DIMENSIONAL WING BY THE FREE-OSCILLATION METHOD. W. J. Tuovila and Robert W. Hess. May 1956. 21p. diagrs., tabs. (NACA RM L56A26a)

EXPERIMENTAL HINGE MOMENTS ON FREELY OSCILLATING FLAP-TYPE CONTROL SURFACES. C. William Martz. October 1956. 29p. diagrs., photos., tab. (NACA RM L56G20)

METHOD FOR CALCULATING THE AERODYNAMIC LOADING ON AN OSCILLATING FINITE WING IN SUBSONIC AND SONIC FLOW. Harry L. Runyan and Donald S. Woolston. 1957. ii, 30p. diagrs., tabs. (NACA Rept. 1322. Supersedes TN 3694)

AN EXPERIMENTAL AND THEORETICAL STUDY OF THE EFFECT OF FUEL ON PITCHING-TRANSLATION FLUTTER. John L. Sewall. December 1957. 42p. diagrs., tabs. (NACA TN 4166)

LIFT AND MOMENT ON THIN ARROWHEAD WINGS WITH SUPERSONIC EDGES OSCILLATING IN SYMMETRIC FLAPPING AND ROLL AND APPLICATION TO THE FLUTTER OF AN ALL-MOVABLE CONTROL SURFACE. H. J. Cunningham. January 1958. 58p. diagrs. (NACA TN 4189)

SUMMARY OF FLUTTER EXPERIENCES AS A GUIDE TO THE PRELIMINARY DESIGN OF LIFTING SURFACES ON MISSILES. Dennis J. Martin. February 1958. 21p. diagrs. (NACA TN 4197. Supersedes RM L51J30)

ELLIPTIC FUNCTIONS AND INTEGRALS WITH REAL MODULUS IN FLUID MECHANICS. (Les Fonctions et Integrales Elliptiques a Module Réel en Mecanique des Fluides). Robert Legendre. June 1958. 113p. diagrs. (NACA TM 1435. Translation of Office National d'Etudes et de Recherches Aeronautiques, Publication 71, 1954)

FLUTTER ANALYSIS OF RECTANGULAR WINGS OF VERY LOW ASPECT RATIO. Robert W. Fralich and John M. Hedgepeth. June 1958. 24p. diagrs. (NACA TN 4245)

PROCEDURE FOR CALCULATING FLUTTER AT HIGH SUPERSONIC SPEED INCLUDING CAMBER DEFLECTIONS, AND COMPARISON WITH EXPERIMENTAL RESULTS. Homer G. Morgan, Vera Huckel, and Harry L. Runyan. September 1958. 32p. diagrs., tab. (NACA TN 4335)

USE OF THE KERNEL FUNCTION IN A THREE-DIMENSIONAL FLUTTER ANALYSIS WITH APPLICATION TO A FLUTTER-TESTED DELTA-WING MODEL. Donald S. Woolston and John L. Sewall. September 1958. 42p. diagrs., tabs. (NACA TN 4395)

(4.2.2) TAILS

LIFT AND MOMENT ON THIN ARROWHEAD WINGS WITH SUPERSONIC EDGES OSCILLATING IN SYMMETRIC FLAPPING AND ROLL AND APPLICATION TO THE FLUTTER OF AN ALL-MOVABLE CONTROL SURFACE. H. J. Cunningham. January 1958. 58p. diagrs. (NACA TN 4189)

(4.2.2.1) ELEVATORS AND RUDDERS

MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A SIMPLIFIED T-TAIL OSCILLATING IN YAW ABOUT THE FIN MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. September 1958. 20p. diagrs., tab. (NACA TN 4402)

(4.2.3) BODIES

PANEL-FLUTTER INVESTIGATION AT SUPERSONIC SPEEDS OF A PRESSURIZED STRUCTURE FABRICATED OF 0.020-INCH-THICK LAMINATED GLASS-PLASTIC. L. Abbott Leissler. June 1955. 13p. diagrs., photo. (NACA RM E55B04)

AN EXPERIMENTAL AND THEORETICAL STUDY OF THE EFFECT OF FUEL ON PITCHING-TRANSLATION FLUTTER. John L. Sewall. December 1957. 42p. diagrs., tabs. (NACA TN 4166)

SUMMARY OF FLUTTER EXPERIENCES AS A GUIDE TO THE PRELIMINARY DESIGN OF LIFTING SURFACES ON MISSILES. Dennis J. Martin. February 1958. 21p. diagrs. (NACA TN 4197. Supersedes RM L51J30)

(4.2.4) PROPELLER, FANS, AND COMPRESSORS

INVESTIGATION OF A 10-STAGE SUBSONIC AXIAL-FLOW RESEARCH COMPRESSOR. III - INVESTIGATION OF ROTATING STALL, BLADE VIBRATION, AND SURGE AT LOW AND INTERMEDIATE COMPRESSOR SPEEDS. Merle C. Huppert, Eleanor L. Costilow, and Ray E. Budinger. May 1953. 47p. diagrs., photos., tabs. (NACA RM E53C19)

A WIND-TUNNEL INVESTIGATION OF THE FIRST-ORDER VIBRATORY STRESSES ON A FULL-SCALE SUPERSONIC-TYPE PROPELLER OPERATING IN AN ASYMMETRIC AIR FLOW. Atwood R. Heath, Jr., and Robert L. O'Neal. November 1954. 28p. diagrs., photo. (NACA RM L54B17a)

FLIGHT MEASUREMENTS OF THE VIBRATORY BENDING AND TORSION STRESS ON A SUPERSONIC-TYPE PROPELLER FOR FLIGHT MACH NUMBERS UP TO 0.95. Thomas C. O'Bryan. July 1956. 22p. diagrs., photos., tab. (NACA RM L56D20a)

FLIGHT MEASUREMENTS OF THE VIBRATORY BENDING AND TORSIONAL STRESSES ON A MODIFIED SUPERSONIC PROPELLER FOR FORWARD MACH NUMBERS UP TO 0.95. Thomas C. O'Bryan. June 1958. 17p. diagrs., photos. (NACA TN 4342).

FLIGHT MEASUREMENTS OF THE VIBRATORY STRESSES ON A PROPELLER DESIGNED FOR AN ADVANCE RATIO OF 4.0 AND A MACH NUMBER OF 0.82. Thomas C. O'Bryan. September 1958. 14p. diagrs., photos. (NACA TN 4410)

(4.2.5) ROTATING-WING AIRCRAFT

FLIGHT AND ANALYTICAL METHODS FOR DETERMINING THE COUPLED VIBRATION RESPONSE OF TANDEM HELICOPTERS. John E. Yeates, Jr., George W. Brooks, and John C. Houbolt. 1957. iv, 31p. diagrs., photo., tabs. (NACA Rept. 1326. Supersedes TN 3852; TN 3849)

FLIGHT INVESTIGATION OF EFFECTS OF ATMOSPHERIC TURBULENCE AND MODERATE MANEUVERS ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. February 1958. 34p. diagrs., photo., tab. (NACA TN 4203)

ANALYSIS OF HARMONIC FORCES PRODUCED AT HUB BY IMBALANCES IN HELICOPTER ROTOR BLADES. M. Morduchow and A. Muzyka, Polytechnic Institute of Brooklyn. April 1958. 37p. diagrs. (NACA TN 4226)

MATRIX METHOD FOR OBTAINING SPANWISE MOMENTS AND DEFLECTIONS OF TORSIONALLY RIGID ROTOR BLADES WITH ARBITRARY LOADINGS. Alton P. Mayo. August 1958. 51p. diagrs., tabs. (NACA TN 4304)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. September 1958. 68p. diagrs., photo., tabs. (NACA TN 4005. Supersedes RM L53D24)

FLIGHT MEASUREMENTS OF THE VIBRATION EXPERIENCED BY A TANDEM HELICOPTER IN TRANSITION, VORTEX-RING STATE, LANDING APPROACH, AND YAWED FLIGHT. John E. Yeates. September 1958. 20p. diagrs. (NACA TN 4409)

(4.2.6) PANELS AND SURFACE COVERINGS

ON PANEL FLUTTER AND DIVERGENCE OF INFINITELY LONG UNSTIFFENED AND RING-STIFFENED THIN-WALLED CIRCULAR CYLINDERS. Robert W. Leonard and John M. Hedgepeth. 1957. ii, 19p. diagrs. (NACA Rept. 1302. Supersedes TN 3638)

STUDIES OF STRUCTURAL FAILURE DUE TO ACOUSTIC LOADING. Robert W. Hess, Robert W. Fralich, and Harvey H. Hubbard. July 1957. 11p. diagrs., tab. (NACA TN 4050)

ON THE FLUTTER OF CYLINDRICAL SHELLS AND PANELS MOVING IN A FLOW OF GAS. (O Flattere Tsilindricheskikh Obolochek i Panelei Dvizhushchikhsia V Potoke Gaza.) R. D. Stepanov. September 1958. 25p. diagrs., tabs. (NACA TM 1438. Translation from Prikladnaia Matematika i Mekhanika, v. 21, no. 5, 1957, p. 644-657)

(4.3)
Structures

TESTS OF AERODYNAMICALLY HEATED MULTI-WEB WING STRUCTURES IN A FREE JET AT MACH NUMBER 2. TWO ALUMINUM-ALLOY MODELS OF 20-INCH CHORD WITH 0.064- AND 0.081-INCH-THICK SKIN. George E. Griffith, Georgene H. Miltonberger, and Richard Rosecrans. August 1955. 39p. diagrs., photos., tabs. (NACA RM L55F13)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. 1957. ii, 16p. diagrs., photos., tab. (NACA Rept. 1332. Supersedes TN 3777)

(4.3.1)
COLUMNS

A SUMMARY OF NACA RESEARCH ON THE STRENGTH AND CREEP OF AIRCRAFT STRUCTURES AT ELEVATED TEMPERATURES. Richard R. Heldenfels and Eldon E. Mathauser. (Presented at Symposium on High-Speed Aerodynamics and Structures sponsored jointly by Air Research and Development Command, Bell Aircraft Corporation, Cornell Aeronautical Laboratory, and University of Buffalo, January 18-20, 1956, Buffalo, New York.) May 1956. 22p. diagrs. (NACA RM L56D06)

METHOD OF SPLIT RIGIDITIES AND ITS APPLICATION TO VARIOUS BUCKLING PROBLEMS. P. P. Bijlaard, Cornell University. July 1958. 97p. diagrs., tabs. (NACA TN 4085)

(4.3.1.1)
TUBULAR

PRACTICAL SOLUTION OF PLASTIC DEFORMATION PROBLEMS IN ELASTIC-PLASTIC RANGE. A. Mendelson and S. S. Manson. September 1957. 52p. diagrs., tab. (NACA TN 4088)

(4.3.1.3)
SECTIONS

HANDBOOK OF STRUCTURAL STABILITY. PART II - BUCKLING OF COMPOSITE ELEMENTS. Herbert Becker, New York University. July 1957. 72p. diagrs., tabs. (NACA TN 3782)

(4.3.3)
PLATES

A SUMMARY OF NACA RESEARCH ON THE STRENGTH AND CREEP OF AIRCRAFT STRUCTURES AT ELEVATED TEMPERATURES. Richard R. Heldenfels and Eldon E. Mathauser. (Presented at Symposium on High-Speed Aerodynamics and Structures sponsored jointly by Air Research and Development Command, Bell Aircraft Corporation, Cornell Aeronautical Laboratory, and University of Buffalo, January 18-20, 1956, Buffalo, New York.) May 1956. 22p. diagrs. (NACA RM L56D06)

INVESTIGATION OF THE COMPRESSIVE STRENGTH AND CREEP LIFETIME OF 2024-T3 ALUMINUM-ALLOY PLATES AT ELEVATED TEMPERATURES. Eldon E. Mathauser and William D. Deveikis. 1957. ii, 14p. diagrs., photos., tabs. (NACA Rept. 1308. Supersedes TN 3552)

RECENT RESEARCH ON THE CREEP OF AIRFRAME COMPONENTS. Eldon E. Mathauser, Avraham Berkovits, and Bland A. Stein. July 1957. 12p. diagrs. (NACA TN 4014)

APPROXIMATE ANALYSIS OF EFFECTS OF LARGE DEFLECTIONS AND INITIAL TWIST ON TORSIONAL STIFFNESS OF A CANTILEVER PLATE SUBJECTED TO THERMAL STRESSES. Richard R. Heldenfels and Louis F. Vosteen. August 1957. 36p. diagrs. (NACA TN 4067)

PRACTICAL SOLUTION OF PLASTIC DEFORMATION PROBLEMS IN ELASTIC-PLASTIC RANGE. A. Mendelson and S. S. Manson. September 1957. 52p. diagrs., tab. (NACA TN 4088)

INVESTIGATION OF THE COMPRESSIVE STRENGTH AND CREEP OF 7075-T6 ALUMINUM-ALLOY PLATES AT ELEVATED TEMPERATURES. William D. Deveikis. November 1957. 28p. diagrs., photos., tabs. (NACA TN 4111)

ANALYSIS OF STRESSES AND DEFLECTIONS IN A DISK SUBJECTED TO GYROSCOPIC FORCES. M. H. Hirschberg and A. Mendelson. March 1958. 37p. diagrs. (NACA TN 4218)

METHOD OF SPLIT RIGIDITIES AND ITS APPLICATION TO VARIOUS BUCKLING PROBLEMS. P. P. Bijlaard, Cornell University. July 1958. 97p. diagrs., tabs. (NACA TN 4085)

COMPRESSIVE STRENGTH AND CREEP OF 17-7 PH STAINLESS-STEEL PLATES AT ELEVATED TEMPERATURES. Bland A. Stein. July 1958. 33p. diagrs., photos., tabs. (NACA TN 4296)

(4.3.3.1)
FLAT

HANDBOOK OF STRUCTURAL STABILITY. PART IV - FAILURE OF PLATES AND COMPOSITE ELEMENTS. George Gerard, New York University. August 1957. ii, 93p. diagrs., tabs. (NACA TN 3784)

FLUTTER ANALYSIS OF RECTANGULAR WINGS OF VERY LOW ASPECT RATIO. Robert W. Fralich and John M. Hedgepeth. June 1958. 24p. diagrs. (NACA TN 4245)

HEAT TRANSFER AND THERMAL STRESSES IN SANDWICH PANELS. Robert T. Swann. September 1958. 34p. diagrs., tabs. (NACA TN 4349)

(4.3.3.1.1) Unstiffened

HANDBOOK OF STRUCTURAL STABILITY. PART I - BUCKLING OF FLAT PLATES. George Gerard and Herbert Becker, New York University. July 1957. iii, 102 p. diagrs., tabs. (NACA TN 3781)

LOCAL INSTABILITY OF THE ELEMENTS OF A TRUSS-CORE SANDWICH PLATE. Melvin S. Anderson. July 1958. 21p. diagrs., photo. (NACA TN 4292)

ANALYSIS OF THE CREEP BEHAVIOR OF A SQUARE PLATE LOADED IN EDGE COMPRESSION. Harvey G. McComb, Jr. September 1958. 42p. diagrs. (NACA TN 4398)

(4.3.3.1.2) Stiffened

A SUMMARY OF NACA RESEARCH ON THE STRENGTH AND CREEP OF AIRCRAFT STRUCTURES AT ELEVATED TEMPERATURES. Richard R. Heldenfels and Eldon E. Mathauser. (Presented at Symposium on High-Speed Aerodynamics and Structures sponsored jointly by Air Research and Development Command, Bell Aircraft Corporation, Cornell Aeronautical Laboratory, and University of Buffalo, January 18-20, 1956, Buffalo, New York.) May 1956. 22p. diagrs. (NACA RM L56D06)

THE EFFECT OF EXTERNAL STIFFENING RIBS ON THE ROLLING POWER OF AILERONS ON A SWEPT WING. Emily W. Stephens. October 1956. 15p. diagrs , photo., tab. (NACA RM L56D19)

HANDBOOK OF STRUCTURAL STABILITY. PART II - BUCKLING OF COMPOSITE ELEMENTS. Herbert Becker, New York University. July 1957. 72p. diagrs., tabs. (NACA TN 3782)

INTERFACE THERMAL CONDUCTANCE OF TWENTY-SEVEN RIVETED AIRCRAFT JOINTS. Martin E. Barzelay and George F. Holloway, Syracuse University. July 1957. 23p. diagrs., tabs. (NACA TN 3991)

HANDBOOK OF STRUCTURAL STABILITY. PART V - COMPRESSIVE STRENGTH OF FLAT STIFFENED PANELS. George Gerard, New York University. August 1957. ii, 89p. diagrs., tabs. (NACA TN 3785)

CHARTS RELATING THE COMPRESSIVE AND SHEAR BUCKLING STRESSES OF LONGITUDINALLY SUPPORTED PLATES TO THE EFFECTIVE DEFLECTIONAL STIFFNESS OF THE SUPPORTS. Aldie E. Johnson, Jr. February 1958. 42p. diagrs., tab. (NACA TN 4188)

EFFECT OF A STRINGER ON THE STRESS CONCENTRATION DUE TO A CRACK IN A THIN SHEET. J. Lyell Sanders, Jr. March 1958. 19p. diagrs., tab. (NACA TN 4207)

EFFECT OF SOME EXTERNAL CROSSWISE STIFFENERS ON THE HEAT TRANSFER AND PRESSURE DISTRIBUTION ON A FLAT PLATE AT MACH NUMBERS OF 0.77, 1.39, AND 1.98. Howard S. Carter. September 1958. 21p. diagrs., photo., tab. (NACA TN 4333)

(4.3.3.2) CURVED

HANDBOOK OF STRUCTURAL STABILITY. PART III - BUCKLING OF CURVED PLATES AND SHELLS. George Gerard and Herbert Becker, New York University. August 1957. iii, 154p. diagrs., tabs. (NACA TN 3783)

HANDBOOK OF STRUCTURAL STABILITY. PART IV - FAILURE OF PLATES AND COMPOSITE ELEMENTS. George Gerard, New York University. August 1957. ii, 93p. diagrs., tabs. (NACA TN 3784)

(4.3.3.2.1) Unstiffened

PANEL-FLUTTER INVESTIGATION AT SUPERSONIC SPEEDS OF A PRESSURIZED STRUCTURE FABRICATED OF 0.020-INCH-THICK LAMINATED GLASS-PLASTIC. L. Abbott Leissler. June 1955. 13p. diagrs., photo. (NACA RM E55B04)

(4.3.3.2.2) Stiffened

HANDBOOK OF STRUCTURAL STABILITY. PART VI - STRENGTH OF STIFFENED CURVED PLATES AND SHELLS. Herbert Becker, New York University. July 1958. iii, 82p. diagrs., tab. (NACA TN 3786)

(4.3.4) BEAMS

TORSIONAL STIFFNESS OF THIN-WALLED SHELLS HAVING REINFORCING CORES AND RECTANGULAR, TRIANGULAR, OR DIAMOND CROSS SECTION. Harvey G. McComb, Jr. ii, 14p. diagrs. (NACA Rept. 1316. Supersedes TN 3749)

THE EFFECT OF EXTERNAL STIFFENING RIBS ON THE ROLLING POWER OF AILERONS ON A SWEPT WING. Emily W. Stephens. October 1956. 15p. diagrs., photo., tab. (NACA RM L56D19)

ON SOLUTIONS FOR THE TRANSIENT RESPONSE OF BEAMS. Robert W. Leonard. June 1958. 65p. diagrs., tabs. (NACA TN 4244)

(4.3.4.1) BOX

AN INVESTIGATION OF THE EFFECTS OF RAPID SKIN HEATING ON BOX BEAMS LOADED IN BENDING. Richard A. Pride. March 1955. 24p. diagrs., photos., tabs. (NACA RM L55B03)

A SUMMARY OF NACA RESEARCH ON THE STRENGTH AND CREEP OF AIRCRAFT STRUCTURES AT ELEVATED TEMPERATURES. Richard R. Heldenfels and Eldon E. Mathauser. (Presented at Symposium on High-Speed Aerodynamics and Structures sponsored jointly by Air Research and Development Command, Bell Aircraft Corporation, Cornell Aeronautical Laboratory, and University of Buffalo, January 18-20, 1956, Buffalo, New York.) May 1956. 22p. diagrs. (NACA RM L56D06)

FATIGUE BEHAVIOR OF AIRCRAFT STRUCTURAL BEAMS. W. S. Hyler, H. G. Popp, D. N. Gideon, S. A. Gordon, and H. J. Grover, Battelle Memorial Institute. January 1958. 60p. diagrs., photos., tabs. (NACA TN 4137)

TRANSIENT HEATING EFFECTS ON THE BENDING STRENGTH OF INTEGRAL ALUMINUM-ALLOY BOX BEAMS. Richard A. Pride and John B. Hall, Jr. March 1958. 38p. diagrs., photo., tab. (NACA TN 4205)

FURTHER INVESTIGATION OF FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath and Herbert A. Leybold. June 1958. 23p. diagrs., tabs. (NACA TN 4246)

(4.3.5) SHELLS

TORSIONAL STIFFNESS OF THIN-WALLED SHELLS HAVING REINFORCING CORES AND RECTANGULAR, TRIANGULAR, OR DIAMOND CROSS SECTION. Harvey G. McComb, Jr. ii, 14p. diagrs. (NACA Rept. 1316. Supersedes TN 3749)

HANDBOOK OF STRUCTURAL STABILITY. PART III - BUCKLING OF CURVED PLATES AND SHELLS. George Gerard and Herbert Becker, New York University. August 1957. iii, 154p. diagrs., tabs. (NACA TN 3783)

PRACTICAL SOLUTION OF PLASTIC DEFORMATION PROBLEMS IN ELASTIC-PLASTIC RANGE. A. Mendelson and S. S. Manson. September 1957. 52p. diagrs., tab. (NACA TN 4088)

STABILITY OF CYLINDRICAL AND CONICAL SHELLS OF CIRCULAR CROSS SECTION, WITH SIMULTANEOUS ACTION OF AXIAL COMPRESSION AND EXTERNAL NORMAL PRESSURE. (Ob ustoĭchivosti tsilindricheskikh i konicheskikh obolochek krugovogo cecheniia pri sovmestnom deĭstvii osevogo szhatiia i vneshnego normalnogo davleniia.) Kh. M. Mushtari and A. V. Sachenkov. April 1958. 15p. (NACA TM 1433. Translation from Prikladnaia Matematika i Mekhanika, v. 18, no. 6, November-December 1954, p. 667-674.)

(4.3.5.1) CYLINDERS

HANDBOOK OF STRUCTURAL STABILITY. PART II - BUCKLING OF COMPOSITE ELEMENTS. Herbert Becker, New York University. July 1957. 72p. diagrs., tabs. (NACA TN 3782)

RECENT RESEARCH ON THE CREEP OF AIRFRAME COMPONENTS. Eldon E. Mathauser, Avraham Berkovits, and Bland A. Stein. July 1957. 12p. diagrs. (NACA TN 4014)

HANDBOOK OF STRUCTURAL STABILITY. PART VI - STRENGTH OF STIFFENED CURVED PLATES AND SHELLS. Herbert Becker, New York University. July 1958. iii, 82p. diagrs., tab. (NACA TN 3786)

(4.3.5.1.1) Circular

PANEL-FLUTTER INVESTIGATION AT SUPERSONIC SPEEDS OF A PRESSURIZED STRUCTURE FABRICATED OF 0.020-INCH-THICK LAMINATED GLASS-PLASTIC. L. Abbott Leissler. June 1955. 13p. diagrs., photo. (NACA RM E55B04)

ON PANEL FLUTTER AND DIVERGENCE OF INFINITELY LONG UNSTIFFENED AND RING-STIFFENED THIN-WALLED CIRCULAR CYLINDERS. Robert W. Leonard and John M. Hedgepeth. 1957. ii, 19p. diagrs. (NACA Rept. 1302. Supersedes TN 3638)

EXPERIMENTAL INVESTIGATION OF CREEP BENDING AND BUCKLING OF THIN CIRCULAR CYLINDRICAL SHELLS. Burton Erickson, Sharad A. Patel, Francis W. French, Samuel Lederman, and N. J. Hoff, Polytechnic Institute of Brooklyn. July 1957. 30p. diagrs., photos., tabs. (NACA RM 57E17)

WEIGHT-STRENGTH STUDIES OF STRUCTURES REPRESENTATIVE OF FUSELAGE CONSTRUCTION. James P. Peterson. October 1957. 47p. diagrs., tab. (NACA TN 4114)

STABILITY OF CYLINDRICAL AND CONICAL SHELLS OF CIRCULAR CROSS SECTION, WITH SIMULTANEOUS ACTION OF AXIAL COMPRESSION AND EXTERNAL NORMAL PRESSURE. (Ob ustoĭchivosti tsilindricheskikh i konicheskikh obolochek krugovogo cecheniia pri sovmestnom deĭstvii osevogo szhatiia i vneshnego normalnogo davleniia.) Kh. M. Mushtari and A. V. Sachenkov. April 1958. 15p. (NACA TM 1433. Translation from Prikladnaia Matematika i Mekhanika, v. 18, no. 6, November-December 1954, p. 667-674.)

GENERAL INSTABILITY OF STIFFENED CYLINDERS. Herbert Becker, New York University. July 1958. 26p. diagrs., tab. (NACA TN 4237)

ON THE FLUTTER OF CYLINDRICAL SHELLS AND PANELS MOVING IN A FLOW OF GAS. (O Flattere Tsilindricheskikh Obolochek i Panelei Dvizhushchikhsia V Potoke Gaza.) R. D. Stepanov. September 1958. 25p. diagrs., tabs. (NACA TM 1438. Translation from Prikladnaia Matematika i Mekhanika, v. 21, no. 5, 1957, p. 644-657)

TESTS OF RING-STIFFENED CIRCULAR CYLINDERS SUBJECTED TO A TRANSVERSE SHEAR LOAD. James P. Peterson and Richard G. Updegraff. September 1958. 12p. diagr., photos., tab. (NACA TN 4403)

(4.3.6) CONNECTIONS

CREEP DEFORMATION PATTERNS OF JOINTS UNDER BEARING AND TENSILE LOADS. E. G. Bodine, R. L. Carlson, and G. K. Manning, Battelle Memorial Institute. December 1957. 36p. diagrs., tabs. (NACA TN 4138)

(4.3.6.2) RIVETED

INTERFACE THERMAL CONDUCTANCE OF TWENTY-SEVEN RIVETED AIRCRAFT JOINTS. Martin E. Barzelay and George F. Holloway, Syracuse University. July 1957. 23p. diagrs., tabs. (NACA TN 3991)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. VARIABLE-AMPLITUDE TESTS WITH A GUST-LOADS SPECTRUM. Richard E. Whaley. November 1957. 43p. diagrs., photos., tabs. (NACA TN 4132)

FATIGUE BEHAVIOR OF AIRCRAFT STRUCTURAL BEAMS. W. S. Hyler, H. G. Popp, D. N. Gideon, S. A. Gordon, and H. J. Grover, Battelle Memorial Institute. January 1958. 60p. diagrs., photos., tabs. (NACA TN 4137)

FURTHER INVESTIGATION OF FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath and Herbert A. Leybold. June 1958. 23p. diagrs., tabs. (NACA TN 4246)

(4.3.6.4) BONDED

FURTHER INVESTIGATION OF FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath and Herbert A. Leybold. June 1958. 23p. diagrs., tabs. (NACA TN 4246)

(4.3.7) LOADS AND STRESSES

TESTS OF AERODYNAMICALLY HEATED MULTI-WEB WING STRUCTURES IN A FREE JET AT MACH NUMBER 2. TWO ALUMINUM-ALLOY MODELS OF 20-INCH CHORD WITH 0.064- AND 0.081-INCH-THICK SKIN. George E. Griffith, Georgene H. Miltonberger, and Richard Rosecrans. August 1955. 39p. diagrs., photos., tabs. (NACA RM L55F13)

APPLICATION OF OBLIQUELY MOUNTED STRAIN GAGE TO MEASUREMENT OF RESIDUAL STRESSES IN DISKS. M. H. Hirschberg, R. H. Kemp, and S. S. Manson. September 1957. 18p. diagrs., photo. (NACA TN 4027)

PRACTICAL SOLUTION OF PLASTIC DEFORMATION PROBLEMS IN ELASTIC-PLASTIC RANGE. A. Mendelson and S. S. Manson. September 1957. 52p. diagrs., tab. (NACA TN 4088)

THEORY OF AIRCRAFT STRUCTURAL MODELS SUBJECT TO AERODYNAMIC HEATING AND EXTERNAL LOADS. William J. O'Sullivan, Jr. September 1957. 48p. (NACA TN 4115)

A VARIATIONAL THEOREM FOR CREEP WITH APPLICATIONS TO PLATES AND COLUMNS. J. Lyell Sanders, Jr., Harvey G. McComb, Jr., and Floyd R. Schlechte. 1958. ii, 7p. diagrs. (NACA Rept. 1342. Supersedes TN 4003)

TEMPERATURE AND THERMAL-STRESS DISTRIBUTIONS IN SOME STRUCTURAL ELEMENTS HEATED AT A CONSTANT RATE. William A. Brooks, Jr. August 1958. 77p. diagrs., tab. (NACA TN 4306)

HEAT TRANSFER AND THERMAL STRESSES IN SANDWICH PANELS. Robert T. Swann. September 1958. 34p. diagrs., tabs. (NACA TN 4349)

(4.3.7.2) COMPRESSION

HANDBOOK OF STRUCTURAL STABILITY. PART I - BUCKLING OF FLAT PLATES. George Gerard and Herbert Becker, New York University. July 1957. iii, 102 p. diagrs., tabs. (NACA TN 3781)

HANDBOOK OF STRUCTURAL STABILITY. PART II - BUCKLING OF COMPOSITE ELEMENTS. Herbert Becker, New York University. July 1957. 72p. diagrs., tabs. (NACA TN 3782)

HANDBOOK OF STRUCTURAL STABILITY. PART III - BUCKLING OF CURVED PLATES AND SHELLS. George Gerard and Herbert Becker, New York University. August 1957. iii, 154p. diagrs., tabs. (NACA TN 3783)

HANDBOOK OF STRUCTURAL STABILITY. PART IV - FAILURE OF PLATES AND COMPOSITE ELEMENTS. George Gerard, New York University. August 1957. ii, 93p. diagrs., tabs. (NACA TN 3784)

HANDBOOK OF STRUCTURAL STABILITY. PART V - COMPRESSIVE STRENGTH OF FLAT STIFFENED PANELS. George Gerard, New York University. August 1957. ii, 89p. diagrs., tabs. (NACA TN 3785)

CHARTS RELATING THE COMPRESSIVE AND SHEAR BUCKLING STRESSES OF LONGITUDINALLY SUPPORTED PLATES TO THE EFFECTIVE DEFLECTIONAL STIFFNESS OF THE SUPPORTS. Aldie E. Johnson, Jr. February 1958. 42p. diagrs., tab. (NACA TN 4188)

STABILITY OF CYLINDRICAL AND CONICAL SHELLS OF CIRCULAR CROSS SECTION, WITH SIMULTANEOUS ACTION OF AXIAL COMPRESSION AND EXTERNAL NORMAL PRESSURE. (Ob ustoichivosti tsilindricheskikh i konicheskikh obolochek krugovogo cecheniia pri sovmestnom deistvii osevogo szhatiia i vneshnego normalnogo davleniia.) Kh. M. Mushtari and A. V. Sachenkov. April 1958. 15p. (NACA TM 1433. Translation from Prikladnaia Matematika i Mekhanika, v. 18, no. 6, November-December 1954, p. 667-674.)

HANDBOOK OF STRUCTURAL STABILITY. PART VI - STRENGTH OF STIFFENED CURVED PLATES AND SHELLS. Herbert Becker, New York University. July 1958. iii, 82p. diagrs., tab. (NACA TN 3786)

METHOD OF SPLIT RIGIDITIES AND ITS APPLICATION TO VARIOUS BUCKLING PROBLEMS. P. P. Bijlaard, Cornell University. July 1958. 97p. diagrs., tabs. (NACA TN 4085)

GENERAL INSTABILITY OF STIFFENED CYLINDERS. Herbert Becker, New York University. July 1958. 26p. diagrs., tab. (NACA TN 4237)

LOCAL INSTABILITY OF THE ELEMENTS OF A TRUSS-CORE SANDWICH PLATE. Melvin S. Anderson. July 1958. 21p. diagrs., photo. (NACA TN 4292)

ANALYSIS OF THE CREEP BEHAVIOR OF A SQUARE PLATE LOADED IN EDGE COMPRESSION. Harvey G. McComb, Jr. September 1958. 42p. diagrs. (NACA TN 4398)

(4.3.7.3) BENDING

AN INVESTIGATION OF THE EFFECTS OF RAPID SKIN HEATING ON BOX BEAMS LOADED IN BENDING. Richard A. Pride. March 1955. 24p. diagrs., photos., tabs. (NACA RM L55B03)

FLIGHT INVESTIGATION AND ANALYSIS OF THE WING DEFORMATIONS ON A SWEPT-WING BOMBER DURING ROLLING MANEUVERS. Alton P. Mayo and John F. Ward. October 1956. 48p. diagrs., photo., tabs. (NACA RM L56C23a)

FLIGHT INVESTIGATION AND THEORETICAL CALCULATIONS OF THE FUSELAGE DEFORMATIONS OF A SWEPT-WING BOMBER DURING PUSH-PULL MANEUVERS. Alton P. Mayo. March 1957. 51p. diagrs., photo., tabs. (NACA RM L56L05)

EXPERIMENTAL INVESTIGATION OF CREEP BENDING AND BUCKLING OF THIN CIRCULAR CYLINDRICAL SHELLS. Burton Erickson, Sharad A. Patel, Francis W. French, Samuel Lederman, and N. J. Hoff, Polytechnic Institute of Brooklyn. July 1957. 30p. diagrs., photos., tabs. (NACA RM 57E17)

WEIGHT-STRENGTH STUDIES OF STRUCTURES REPRESENTATIVE OF FUSELAGE CONSTRUCTION. James P. Peterson. October 1957. 47p. diagrs., tab. (NACA TN 4114)

TRANSIENT HEATING EFFECTS ON THE BENDING STRENGTH OF INTEGRAL ALUMINUM-ALLOY BOX BEAMS. Richard A. Pride and John B. Hall, Jr. March 1958. 38p. diagrs., photo., tab. (NACA TN 4205)

AN INVESTIGATION OF THE EFFECTS OF ATMOSPHERIC CORROSION ON THE FATIGUE LIFE OF ALUMINUM ALLOYS. Herbert A. Leybold, Herbert F. Hardrath, and Robert L. Moore. September 1958. 17p. diagrs., photo., tabs. (NACA TN 4331)

(4.3.7.4) TORSION

TORSIONAL STIFFNESS OF THIN-WALLED SHELLS HAVING REINFORCING CORES AND RECTANGULAR, TRIANGULAR, OR DIAMOND CROSS SECTION. Harvey G. McComb, Jr. ii, 14p. diagrs. (NACA Rept. 1316. Supersedes TN 3749)

(4.3.7.5) SHEAR

WEIGHT-STRENGTH STUDIES OF STRUCTURES REPRESENTATIVE OF FUSELAGE CONSTRUCTION. James P. Peterson. October 1957. 47p. diagrs., tab. (NACA TN 4114)

CHARTS RELATING THE COMPRESSIVE AND SHEAR BUCKLING STRESSES OF LONGITUDINALLY SUPPORTED PLATES TO THE EFFECTIVE DEFLECTIONAL STIFFNESS OF THE SUPPORTS. Aldie E. Johnson, Jr. February 1958. 42p. diagrs., tab. (NACA TN 4188)

HANDBOOK OF STRUCTURAL STABILITY. PART VI - STRENGTH OF STIFFENED CURVED PLATES AND SHELLS. Herbert Becker, New York University. July 1958. iii, 82p. diagrs., tab. (NACA TN 3786)

TESTS OF RING-STIFFENED CIRCULAR CYLINDERS SUBJECTED TO A TRANSVERSE SHEAR LOAD. James P. Peterson and Richard G. Updegraff. September 1958. 12p. diagr., photos., tab. (NACA TN 4403)

(4.3.7.6) CONCENTRATED

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. VARIABLE-AMPLITUDE TESTS WITH A GUST-LOADS SPECTRUM. Richard E. Whaley. November 1957. 43p. diagrs., photos., tabs. (NACA TN 4132)

EFFECT OF A STRINGER ON THE STRESS CONCENTRATION DUE TO A CRACK IN A THIN SHEET. J. Lyell Sanders, Jr. March 1958. 19p. diagrs., tab. (NACA TN 4207)

FURTHER INVESTIGATION OF FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath and Herbert A. Leybold. June 1958. 23p. diagrs., tabs. (NACA TN 4246)

THE RATE OF FATIGUE-CRACK PROPAGATION IN TWO ALUMINUM ALLOYS. Arthur J. McEvily, Jr., and Walter Illg. September 1958. 46p. diagrs., tabs. (NACA TN 4394)

(4.3.7.7) DYNAMIC

A LIMITED FLIGHT INVESTIGATION OF THE EFFECT OF DYNAMIC VIBRATION ABSORBERS ON THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. Jim Rogers Thompson and John E. Yeates, Jr. January 1955. 29p. diagrs., photos. (NACA RM L54K02)

INVESTIGATION OF UNSTEADY FLOW PAST FOUR NACA 6-PERCENT-THICK AIRFOIL SECTIONS. Charles L. Ladson and Walter F. Lindsey. July 1956. 17p. diagrs. (NACA RM L56E14)

A SEMIEMPIRICAL PROCEDURE FOR ESTIMATING WING BUFFET LOADS IN THE TRANSONIC REGION. T. H. Skopinski and Wilber B. Huston. September 1956. 22p. diagrs., tab. (NACA RM L56E01)

COMPARISON OF SEVERAL METHODS FOR OBTAINING THE TIME RESPONSE OF LINEAR SYSTEMS TO EITHER A UNIT IMPULSE OR ARBITRARY INPUT FROM FREQUENCY-RESPONSE DATA. James J. Donegan and Carl R. Huss. 1957. ii, 13p. diagrs., tabs. (NACA Rept. 1324. Supersedes TN 3701.)

FLIGHT AND ANALYTICAL METHODS FOR DETERMINING THE COUPLED VIBRATION RESPONSE OF TANDEM HELICOPTERS. John E. Yeates, Jr., George W. Brooks, and John C. Houbolt. 1957. iv, 31p. diagrs., photo., tabs. (NACA Rept. 1326. Supersedes TN 3852; TN 3849)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. 1957. ii, 16p. diagrs., photos., tab. (NACA Rept. 1332. Supersedes TN 3777)

A CORRELATION OF RESULTS OF A FLIGHT INVESTIGATION WITH RESULTS OF AN ANALYTICAL STUDY OF EFFECTS OF WING FLEXIBILITY ON WING STRAINS DUE TO GUSTS. C. C. Shufflebarger, Chester B. Payne, and George L. Cahen. August 1957. 40p. diagrs., tab. (NACA TN 4071)

FLIGHT DATA PERTINENT TO BUFFETING AND MAXIMUM NORMAL-FORCE COEFFICIENT OF THE DOUGLAS X-3 RESEARCH AIRPLANE. Thomas F. Baker, James A. Martin, and Betty J. Scott. November 1957. 41p. diagrs., photo., tabs. (NACA RM H57H09)

COMPARISON OF HYDRODYNAMIC-IMPACT ACCELERATION AND RESPONSE FOR SYSTEMS WITH SINGLE AND WITH MULTIPLE ELASTIC MODES. Robert W. Miller. February 1958. 30p. diagrs., photos., tabs. (NACA TN 4194)

FLIGHT INVESTIGATION OF EFFECTS OF ATMOSPHERIC TURBULENCE AND MODERATE MANEUVERS ON BENDING AND TORSIONAL MOMENTS ENCOUNTERED BY A HELICOPTER ROTOR BLADE. LeRoy H. Ludi. February 1958. 34p. diagrs., photo., tab. (NACA TN 4203)

ANALYSIS OF STRESSES AND DEFLECTIONS IN A DISK SUBJECTED TO GYROSCOPIC FORCES. M. H. Hirschberg and A. Mendelson. March 1958. 37p. diagrs. (NACA TN 4218)

EFFECT OF THE PROXIMITY OF THE WING FIRST-BENDING FREQUENCY AND THE SHORT-PERIOD FREQUENCY ON THE AIRPLANE DYNAMIC-RESPONSE FACTOR. Carl R. Huss and James J. Donegan. June 1958. 45p. diagrs. (NACA TN 4250)

EXPERIMENTAL MEASUREMENTS OF THE EFFECTS OF AIRPLANE MOTIONS ON WING AND TAIL ANGLES OF ATTACK OF A SWEPT-WING BOMBER IN ROUGH AIR. Jerome N. Engel. August 1958. 25p. diagrs., photo., tabs. (NACA TN 4307)

MEASUREMENTS OF GROUND-REACTION FORCES AND VERTICAL CENTER-OF-GRAVITY ACCELERATIONS OF A BOMBER AIRPLANE TAXIING OVER OBSTACLES. James M. McKay, Richard H. Sawyer, and Albert W. Hall. September 1958. 30p. diagrs., photos., tabs. (NACA TN 4400)

(4.3.7.7.1) Repeated

NOTES ON A LARGE-SCALE STATISTICAL PROGRAM FOR THE ESTABLISHMENT OF MANEUVER-LOADS DESIGN CRITERIA FOR MILITARY AIRPLANES. John P. Mayer, Ralph W. Stone, Jr., and Harold A. Hamer. July 1957. 57p. diagrs., tabs. (NACA RM L57E30)

CALCULATED AND MEASURED STRESSES IN SIMPLE PANELS SUBJECT TO INTENSE RANDOM ACOUSTIC LOADING INCLUDING THE NEAR NOISE FIELD OF A TURBOJET ENGINE. Leslie W. Lassiter and Robert W. Hess. September 1957. 33p. diagrs. (NACA TN 4076)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. VARIABLE-AMPLITUDE TESTS WITH A GUST-LOADS SPECTRUM. Richard E. Whaley. November 1957. 43p. diagrs., photos., tabs. (NACA TN 4132)

FATIGUE BEHAVIOR OF AIRCRAFT STRUCTURAL BEAMS. W. S. Hyler, H. G. Popp, D. N. Gideon, S. A. Gordon, and H. J. Grover, Battelle Memorial Institute. January 1958. 60p. diagrs., photos., tabs. (NACA TN 4137)

FURTHER INVESTIGATION OF FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath and Herbert A. Leybold. June 1958. 23p. diagrs., tabs. (NACA TN 4246)

AN ESTIMATE OF THE FLUCTUATING SURFACE PRESSURES ENCOUNTERED IN THE REENTRY OF A BALLISTIC MISSILE. Edmund E. Callaghan. July 1958. 18p. diagrs. (NACA TN 4315)

AN INVESTIGATION OF THE EFFECTS OF ATMOSPHERIC CORROSION ON THE FATIGUE LIFE OF ALUMINUM ALLOYS. Herbert A. Leybold, Herbert F. Hardrath, and Robert L. Moore. September 1958. 17p. diagrs., photo., tabs. (NACA TN 4331)

EXPERIMENTAL EVALUATION OF LOW-BAND-PASS LANDING-GEAR SHOCK ABSORBER FOR PULSE LOADINGS. Emanuel Schnitzer. September 1958. 39p. diagrs., photos., tabs. (NACA TN 4387)

THE RATE OF FATIGUE-CRACK PROPAGATION IN TWO ALUMINUM ALLOYS. Arthur J. McEvily, Jr., and Walter Illg. September 1958. 46p. diagrs., tabs. (NACA TN 4394)

(4.3.7.7.2) Transient

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. 1957. ii, 16p. diagrs., photos., tab. (NACA Rept. 1332. Supersedes TN 3777)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING BENDING STRAINS IN ROUGH AIR. Thomas L. Coleman, Harry Press, and C. C. Shufflebarger. July 1957. 22p. diagrs. (NACA TN 4055)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING STRAINS IN ROUGH AIR AT 5,000 FEET AS DETERMINED BY FLIGHT TESTS OF A LARGE SWEPT-WING AIRPLANE. Richard H. Rhyne and Harold N. Murrow. September 1957. 32p. diagrs., photo., tabs. (NACA TN 4107)

EFFECTS OF AIRPLANE FLEXIBILITY ON WING STRAINS IN ROUGH AIR AT 35,000 FEET AS DETERMINED BY A FLIGHT INVESTIGATION OF A LARGE SWEPT-WING AIRPLANE. Richard H. Rhyne. January 1958. 23p. diagrs., tab. (NACA TN 4198)

ON SOLUTIONS FOR THE TRANSIENT RESPONSE OF BEAMS. Robert W. Leonard. June 1958. 65p. diagrs., tabs. (NACA TN 4244)

AN EVALUATION OF EFFECTS OF FLEXIBILITY ON WING STRAINS IN ROUGH AIR FOR A LARGE SWEPT-WING AIRPLANE BY MEANS OF EXPERIMENTALLY DETERMINED FREQUENCY-RESPONSE FUNCTIONS WITH AN ASSESSMENT OF RANDOM-PROCESS TECHNIQUES EMPLOYED. Thomas L. Coleman, Harry Press, and May T. Meadows. July 1958. ii, 74p. diagrs., photo., tabs. (NACA TN 4291)

LANDING AND TAXIING TESTS OVER VARIOUS TYPES OF RUNWAY LIGHTS. Robert C. Dreher and Sidney A. Batterson. August 1958. 39p. diagrs., photos., tabs. (NACA RM L58C28a)

AN APPROACH TO THE PROBLEM OF ESTIMATING SEVERE AND REPEATED GUST LOADS FOR MISSILE OPERATIONS. Harry Press and Roy Steiner. September 1958. 44p. diagrs., tab. (NACA TN 4332)

EXPERIMENTAL EVALUATION OF LOW-BAND-PASS LANDING-GEAR SHOCK ABSORBER FOR PULSE LOADINGS. Emanuel Schnitzer. September 1958. 39p. diagrs., photos., tabs. (NACA TN 4387)

(4.3.7.8) NORMAL PRESSURES

STABILITY OF CYLINDRICAL AND CONICAL SHELLS OF CIRCULAR CROSS SECTION, WITH SIMULTANEOUS ACTION OF AXIAL COMPRESSION AND EXTERNAL NORMAL PRESSURE. (Ob ustoĭchivosti tsilindricheskikh i konicheskikh obolochek krugovogo secheniia pri sovmestnom deĭstvii osevogo szhatiia i vneshnego normalnogo davleniia.) Kh. M. Mushtari and A. V. Sachenkov. April 1958. 15p. (NACA TM 1433. Translation from Prikladnaia Matematika i Mekhanika, v. 18, no. 6, November-December 1954, p. 667-674.)

(4.3.8) WEIGHT ANALYSIS

WEIGHT-STRENGTH STUDIES OF STRUCTURES REPRESENTATIVE OF FUSELAGE CONSTRUCTION. James P. Peterson. October 1957. 47p. diagrs., tab. (NACA TN 4114)

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MATERIALS

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MATERIALS

ELEVATED-TEMPERATURE COMBINED STRESS-RUPTURE PLUS FATIGUE STRENGTH OF WASPALOY HAVING DIFFERENT AGING TREATMENTS AND/OR MOLYBDENUM CONTENTS.
C. A. Hoffman and M. B. Hornak. February 1958. 21p. diagrs., photos., tabs. (NACA RM E57K22a)

(5.1) Types

(5.1.1) ALUMINUM

HIGH-TEMPERATURE OXIDATION AND IGNITION OF METALS. Paul R. Hill, David Adamson, Douglas H. Foland, and Walter E. Bressette. March 1956. 12p. diagrs. (NACA RM L55L23b)

INFLUENCE OF ALLOYING UPON GRAIN-BOUNDARY CREEP. F. N. Rhines, W. E. Bond, and M. A. Kissel, Carnegie Institute of Technology. 1957. ii, 6p. diagrs., tab. (NACA Rept. 1331. Supersedes TN 3678)

EFFECT OF CRYSTAL ORIENTATION ON FATIGUE-CRACK INITIATION IN POLYCRYSTALLINE ALUMINUM ALLOYS. J. G. Weinberg and J. A. Bennett, National Bureau of Standards. August 1957. 22p. diagrs., photos., tabs. (NACA TN 3990)

GENERALIZED MASTER CURVES FOR CREEP AND RUPTURE. George J. Heimerl and Arthur J. McEvily, Jr. October 1957. 31p. diagrs., tab. (NACA TN 4112)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. 1958. ii, 6p. diagrs., tab. (NACA Rept. 1343. Supersedes TN 4000)

FATIGUE BEHAVIOR OF AIRCRAFT STRUCTURAL BEAMS. W. S. Hyler, H. G. Popp, D. N. Gideon, S. A. Gordon, and H. J. Grover, Battelle Memorial Institute. January 1958. 60p. diagrs., photos., tabs. (NACA TN 4137)

CREEP OF ALUMINUM-COPPER ALLOYS DURING AGE HARDENING. E. E. Underwood, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. February 1958. 73p. diagrs., photos., tabs. (NACA TN 4036)

FURTHER INVESTIGATION OF FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath and Herbert A. Leybold. June 1958. 23p. diagrs., tabs. (NACA TN 4246)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

INTERNAL-FRICTION STUDY OF ALUMINUM ALLOY CONTAINING 4 WEIGHT PERCENT COPPER. B. S. Berry and A. S. Nowick, Yale University. August 1958. 88p. diagrs., tabs. (NACA TN 4225)

RELATIONSHIP OF METAL SURFACES TO HEAT-AGING PROPERTIES OF ADHESIVE BONDS. J. M. Black and R. F. Blomquist, Forest Products Laboratory. September 1958. 30p. diagrs., tabs. (NACA TN 4287)

AN INVESTIGATION OF THE EFFECTS OF ATMOSPHERIC CORROSION ON THE FATIGUE LIFE OF ALUMINUM ALLOYS. Herbert A. Leybold, Herbert F. Hardrath, and Robert L. Moore. September 1958. 17p. diagrs., photo., tabs. (NACA TN 4331)

SOME OBSERVATIONS RELATING TO RECOVERY OF INTERNAL FRICTION DURING FATIGUE OF ALUMINUM. S. R. Valluri, California Institute of Technology. September 1958. 30p. diagrs., tab. (NACA TN 4371)

EFFECT OF PRECIPITATE PARTICLES ON CREEP OF ALUMINUM-COPPER ALLOYS DURING AGE HARDENING. E. E. Underwood, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. September 1958. 56p. diagrs., photos., tabs. (NACA TN 4372)

THE RATE OF FATIGUE-CRACK PROPAGATION IN TWO ALUMINUM ALLOYS. Arthur J. McEvily, Jr., and Walter Illg. September 1958. 46p. diagrs., tabs. (NACA TN 4394)

A PHENOMENOLOGICAL THEORY FOR THE TRANSIENT CREEP OF METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. September 1958. 31p. diagrs., tabs. (NACA TN 4396)

(5.1.2) MAGNESIUM

HIGH-TEMPERATURE OXIDATION AND IGNITION OF METALS. Paul R. Hill, David Adamson, Douglas H. Foland, and Walter E. Bressette. March 1956. 12p. diagrs. (NACA RM L55L23b)

SOME OBSERVATIONS ON STRESS-CORROSION CRACKING OF SINGLE CRYSTALS OF AZ61X MAGNESIUM ALLOY. F. Meller and M. Metzger, Columbia University. July 1957. 23p. diagr., photos., tabs. (NACA TN 4019)

(5.1.3) STEELS

HIGH-TEMPERATURE OXIDATION AND IGNITION OF METALS. Paul R. Hill, David Adamson, Douglas H. Foland, and Walter E. Bressette. March 1956. 12p. diagrs. (NACA RM L55L23b)

STUDY OF THE MICRO-NONUNIFORMITY OF THE PLASTIC DEFORMATION OF STEEL. (Issledovanie mikroneodnorodnosti plasticheskoi deformatsii stali.) B. B. Chechulin. August 1957. 21p. diagrs., tab. (NACA TM 1411. Translation from Fizika Metallov i Metallovedenie, v.1, no.2, 1955, p.251-260.)

STRENGTH AND DUCTILITY OF BAINITIC STEELS. Donald H. Desy, J. O. Brittain, and M. Gensamer, Columbia University. August 1957. 32p. diagrs., photos., tabs. (NACA TN 3989)

COMPRESSIVE STRESS-STRAIN PROPERTIES OF 17-7 PH AND AM 350 STAINLESS-STEEL SHEET AT ELEVATED TEMPERATURES. Bland A. Stein. August 1957. 21p. diagrs., photo., tabs. (NACA TN 4074)

TENSILE STRESS-STRAIN PROPERTIES OF 17-7 PH AND AM 350 STAINLESS-STEEL SHEET AT ELEVATED TEMPERATURES. Ivo M. Kurg. September 1957. 16p. diagrs., tabs. (NACA TN 4075)

GENERALIZED MASTER CURVES FOR CREEP AND RUPTURE. George J. Heimerl and Arthur J. McEvily, Jr. October 1957. 31p. diagrs., tab. (NACA TN 4112)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

TRANSGRANULAR AND INTERGRANULAR FRACTURE OF INGOT IRON DURING CREEP. L. A. Shepard and W. H. Giedt, University of California, Berkeley. August 1958. 26p. diagrs., photos., tabs. (NACA TN 4285)

CUMULATIVE FATIGUE DAMAGE AT ELEVATED TEMPERATURE. William K. Rey, University of Alabama. September 1958. 53p. diagrs., tabs. (NACA TN 4284)

RELATIONSHIP OF METAL SURFACES TO HEAT-AGING PROPERTIES OF ADHESIVE BONDS. J. M. Black and R. F. Blomquist, Forest Products Laboratory. September 1958. 30p. diagrs., tabs. (NACA TN 4287)

(5.1.4) HEAT-RESISTING ALLOYS

ENGINE PERFORMANCE OF ALLOY 73J TURBINE BLADES CAST TO PREDETERMINED GRAIN SIZES. James R. Johnston, Charles A. Gyorgak, and John W. Weeton. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E05)

COOPERATIVE INVESTIGATION OF RELATIONSHIP BETWEEN STATIC AND FATIGUE PROPERTIES OF WROUGHT N-155 ALLOY AT ELEVATED TEMPERATURES. NACA Subcommittee on Power Plant Materials. 1956. ii, 35p. diagrs., photos., tabs. (NACA Rept. 1288. Supersedes TN 3216)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

PERFORMANCE OF INCONEL 739 BUCKETS IN J33-9 TURBOJET ENGINE. C. A. Gyorgak and J. R. Johnston. October 1956. 19p. diagrs., photos., tabs. (NACA RM E56E24)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. 1957. ii, 52p. diagrs., photos., tabs. (NACA Rept. 1341. Supersedes TN 3727)

TENSILE PROPERTIES OF INCONEL X SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. Ivo M. Kurg. August 1957. 20p. diagrs., tabs. (NACA TN 4065)

REDUCTION OF OXIDIZED NICHROME V POWDERS AND SINTERING OF NICHROME V BODIES. Paul Sikora and Philip Clarkin. September 1957. 18p. photos., tabs. (NACA TN 4032)

GENERALIZED MASTER CURVES FOR CREEP AND RUPTURE. George J. Heimerl and Arthur J. McEvily, Jr. October 1957. 31p. diagrs., tab. (NACA TN 4112)

THEORY AND APPARATUS FOR MEASUREMENT OF EMISSIVITY FOR RADIATIVE COOLING OF HYPERSONIC AIRCRAFT WITH DATA FOR INCONEL AND INCONEL X. William J. O'Sullivan, Jr., and William R. Wade. October 1957. ii, 48p. diagrs., photos. (NACA TN 4121)

ABNORMAL GRAIN GROWTH IN M-252 AND S-816 ALLOYS. R. F. Decker, A. I. Rush, A. G. Dano, and J. W. Freeman, University of Michigan. November 1957. 61p. diagrs., photos., tabs. (NACA TN 4084)

EFFECT OF OVERHEATING ON CREEP-RUPTURE PROPERTIES OF S-816 ALLOY AT 1,500° F. John P. Rowe and J. W. Freeman, University of Michigan. December 1957. 75p. diagrs., photos., tabs. (NACA TN 4081)

ABNORMAL GRAIN GROWTH IN NICKEL-BASE HEAT-RESISTANT ALLOYS. R. F. Decker, A. I. Rush, A. G. Dano, and J. W. Freeman, University of Michigan. December 1957. 70p. diagrs., photos., tabs. (NACA TN 4082)

EFFECT OF OVERHEATING ON CREEP-RUPTURE PROPERTIES OF HS-31 ALLOY AT 1,500° F. John P. Rowe and J. W. Freeman, University of Michigan. December 1957. 78p. diagrs., photos., tabs. (NACA TN 4083)

EFFECT OF ENVIRONMENTS OF SODIUM HYDROXIDE, AIR, AND ARGON ON THE STRESS-RUPTURE PROPERTIES OF NICKEL AT 1500° F. Howard T. McHenry and H. B. Probst. January 1958. 23p. diagrs., photos., tab. (NACA TN 3987)

ELEVATED-TEMPERATURE COMBINED STRESS-RUPTURE PLUS FATIGUE STRENGTH OF WASPALOY HAVING DIFFERENT AGING TREATMENTS AND/OR MOLYBDENUM CONTENTS. C. A. Hoffman and M. B. Hornak. February 1958. 21p. diagrs., photos., tabs. (NACA RM E57K22a)

MEASUREMENTS OF TOTAL HEMISPHERICAL EMISSIVITY OF VARIOUS OXIDIZED METALS AT HIGH TEMPERATURE. William R. Wade. March 1958. 43p. diagrs., photos. (NACA TN 4206)

EFFECT OF OVERHEATING ON CREEP-RUPTURE PROPERTIES OF M-252 ALLOY. John P. Rowe and J. W. Freeman, University of Michigan. March 1958. 83p. diagrs., photos., tabs. (NACA TN 4224)

EFFECT OF PRIOR AIR FORCE OVERTEMPERATURE OPERATION ON LIFE OF J47 BUCKETS EVALUATED IN A SEA-LEVEL CYCLIC ENGINE TEST. Robert A. Signorelli, James R. Johnston, and Floyd B. Garrett. April 1958. 41p. diagrs., photos., tabs. (NACA TN 4263)

INFLUENCE OF HEAT TREATMENT ON MICROSTRUCTURE AND HIGH-TEMPERATURE PROPERTIES OF A NICKEL-BASE PRECIPITATION-HARDENING ALLOY. R. F. Decker, John P. Rowe, W. C. Bigelow, and J. W. Freeman, University of Michigan. July 1958. 53p. diagrs., photos., tabs. (NACA TN 4329)

TRANSGRANULAR AND INTERGRANULAR FRACTURE OF INGOT IRON DURING CREEP. L. A. Shepard and W. H. Giedt, University of California, Berkeley. August 1958. 26p. diagrs., photos., tabs. (NACA TN 4285)

MECHANISM OF BENEFICIAL EFFECTS OF BORON AND ZIRCONIUM ON CREEP-RUPTURE PROPERTIES OF A COMPLEX HEAT-RESISTANT ALLOY. R. F. Decker and J. W. Freeman, University of Michigan. August 1958. 54p. diagrs., photos., tabs. (NACA TN 4286)

THERMAL FATIGUE OF DUCTILE MATERIALS. I - EFFECT OF VARIATIONS IN THE TEMPERATURE CYCLE ON THE THERMAL-FATIGUE LIFE OF S-816 AND INCONEL 550. Francis J. Clauss and James W. Freeman. September 1958. 61p. diagrs., photos. (NACA TN 4160)

THERMAL FATIGUE OF DUCTILE MATERIALS. II - EFFECT OF CYCLIC THERMAL STRESSING ON THE STRESS-RUPTURE LIFE AND DUCTILITY OF S-816 AND INCONEL 550. Francis J. Clauss and James W. Freeman. September 1958. 43p. diagrs., photos. (NACA TN 4165)

(5.1.6) PLASTICS

PRELIMINARY INVESTIGATION OF THE STRENGTH AND ENDURANCE OF PLASTIC-IMPREGNATED FIBERGLASS COMPRESSOR BLADES. Donald F. Johnson and André J. Meyer, Jr. January 1955. 21p. diagrs., photos. (NACA RM E54127a)

PANEL-FLUTTER INVESTIGATION AT SUPERSONIC SPEEDS OF A PRESSURIZED STRUCTURE FABRICATED OF 0.020-INCH-THICK LAMINATED GLASS-PLASTIC. L. Abbott Leissler. June 1955. 13p. diagrs., photo. (NACA RM E55B04)

(5.1.8) ADHESIVES

RELATIONSHIP OF METAL SURFACES TO HEAT-AGING PROPERTIES OF ADHESIVE BONDS. J. M. Black and R. F. Blomquist, Forest Products Laboratory. September 1958. 30p. diagrs., tabs. (NACA TN 4287)

(5.1.9) PROTECTIVE COATINGS

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

A MACH 4 ROCKET-POWERED SUPERSONIC TUNNEL USING AMMONIA-OXYGEN AS WORKING FLUID. Robert W. Graham, Eleanor Costilow Guentert, and Vearl N. Huff. September 1958. 53p. diagrs., photos. (NACA TN 4325)

(5.1.11) SANDWICH AND LAMINATES

LOCAL INSTABILITY OF THE ELEMENTS OF A TRUSS-CORE SANDWICH PLATE. Melvin S. Anderson. July 1958. 21p. diagrs., photo. (NACA TN 4292)

HEAT TRANSFER AND THERMAL STRESSES IN SANDWICH PANELS. Robert T. Swann. September 1958. 34p. diagrs., tabs. (NACA TN 4349)

(5.1.12) CERAMALS

INVESTIGATION OF A CERMET GAS-TURBINE-BLADE MATERIAL OF TITANIUM CARBIDE INFILTRATED WITH HASTALLOY C. Charles A. Hoffman. January 1956. 23p. diagrs., photos., tab. (NACA RM E55H12)

EXPERIMENTAL INVESTIGATION OF CERMET TURBINE BLADES IN AN AXIAL-FLOW TURBOJET ENGINE. William C. Morgan and George C. Deutsch. October 1957. 20p. photos., tab. (NACA TN 4030)

(5.2)
Properties

PRELIMINARY INVESTIGATION OF THE STRENGTH AND ENDURANCE OF PLASTIC-IMPREGNATED FIBERGLASS COMPRESSOR BLADES. Donald F. Johnson and André J. Meyer, Jr. January 1955. 21p. diagrs., photos. (NACA RM E54I27a)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

(5.2.1)
TENSILE

INFLUENCE OF ALLOYING UPON GRAIN-BOUNDARY CREEP. F. N. Rhines, W. E. Bond, and M. A. Kissel, Carnegie Institute of Technology. 1957. ii, 6p. diagrs., tab. (NACA Rept. 1331. Supersedes TN 3678)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. 1957. ii, 52p. diagrs., photos., tabs. (NACA Rept. 1341. Supersedes TN 3727)

STUDY OF THE MICRO-NONUNIFORMITY OF THE PLASTIC DEFORMATION OF STEEL. (Issledovanie mikroneodnorodnosti plasticheskoi deformatsii stali.) B. B. Chechulin. August 1957. 21p. diagrs., tab. (NACA TM 1411. Translation from Fizika Metallov i Metallovedenie, v.1, no.2, 1955, p.251-260.)

STRENGTH AND DUCTILITY OF BAINITIC STEELS. Donald H. Desy, J. O. Brittain, and M. Gensamer, Columbia University. August 1957. 32p. diagrs., photos., tabs. (NACA TN 3989)

TENSILE PROPERTIES OF INCONEL X SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. Ivo M. Kurg. August 1957. 20p. diagrs., tabs. (NACA TN 4065)

REDUCTION OF OXIDIZED NICHROME V POWDERS AND SINTERING OF NICHROME V BODIES. Paul Sikora and Philip Clarkin. September 1957. 18p. photos., tabs. (NACA TN 4032)

TENSILE STRESS-STRAIN PROPERTIES OF 17-7 PH AND AM 350 STAINLESS-STEEL SHEET AT ELEVATED TEMPERATURES. Ivo M. Kurg. September 1957. 16p. diagrs., tabs. (NACA TN 4075)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. 1958. ii, 6p. diagrs., tab. (NACA Rept. 1343. Supersedes TN 4000)

TRANSGRANULAR AND INTERGRANULAR FRACTURE OF INGOT IRON DURING CREEP. L. A. Shepard and W. H. Giedt, University of California, Berkeley. August 1958. 26p. diagrs., photos., tabs. (NACA TN 4285)

A PHENOMENOLOGICAL THEORY FOR THE TRANSIENT CREEP OF METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. September 1958. 31p. diagrs., tabs. (NACA TN 4396)

THE THEORY OF DIFFUSION IN STRAINED SYSTEMS. Louis A. Girifalco and Hubert H. Grimes. September 1958. (i), 49p. diagrs., tabs. (NACA TN 4408)

(5.2.2)
COMPRESSIVE

COMPRESSIVE STRESS-STRAIN PROPERTIES OF 17-7 PH AND AM 350 STAINLESS-STEEL SHEET AT ELEVATED TEMPERATURES. Bland A. Stein. August 1957. 21p. diagrs., photo., tabs. (NACA TN 4074)

TENSILE STRESS-STRAIN PROPERTIES OF 17-7 PH AND AM 350 STAINLESS-STEEL SHEET AT ELEVATED TEMPERATURES. Ivo M. Kurg. September 1957. 16p. diagrs., tabs. (NACA TN 4075)

THE THEORY OF DIFFUSION IN STRAINED SYSTEMS. Louis A. Girifalco and Hubert H. Grimes. September 1958. (i), 49p. diagrs., tabs. (NACA TN 4408)

(5.2.3)
CREEP

A SUMMARY OF NACA RESEARCH ON THE STRENGTH AND CREEP OF AIRCRAFT STRUCTURES AT ELEVATED TEMPERATURES. Richard R. Heldenfels and Eldon E. Mathauser. (Presented at Symposium on High-Speed Aerodynamics and Structures sponsored jointly by Air Research and Development Command, Bell Aircraft Corporation, Cornell Aeronautical Laboratory, and University of Buffalo, January 18-20, 1956, Buffalo, New York.) May 1956. 22p. diagrs. (NACA RM L56D06)

INVESTIGATION OF THE COMPRESSIVE STRENGTH AND CREEP LIFETIME OF 2024-T3 ALUMINUM-ALLOY PLATES AT ELEVATED TEMPERATURES. Eldon E. Mathauser and William D. Deveikis. 1957. ii, 14p. diagrs., photos., tabs. (NACA Rept. 1308. Supersedes TN 3552)

INFLUENCE OF ALLOYING UPON GRAIN-BOUNDARY CREEP. F. N. Rhines, W. E. Bond, and M. A. Kissel, Carnegie Institute of Technology. 1957. ii, 6p. diagrs., tab. (NACA Rept. 1331. Supersedes TN 3678)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. 1957. ii, 52p. diagrs., photos., tabs. (NACA Rept. 1341. Supersedes TN 3727)

EXPERIMENTAL INVESTIGATION OF CREEP BENDING AND BUCKLING OF THIN CIRCULAR CYLINDRICAL SHELLS. Burton Erickson, Sharad A. Patel, Francis W. French, Samuel Lederman, and N. J. Hoff, Polytechnic Institute of Brooklyn. July 1957. 30p. diagrs., photos., tabs. (NACA RM 57E17)

RECENT RESEARCH ON THE CREEP OF AIR-FRAME COMPONENTS. Eldon E. Mathauser, Avraham Berkovits, and Bland A. Stein. July 1957. 12p. diagrs. (NACA TN 4014)

GENERALIZED MASTER CURVES FOR CREEP AND RUPTURE. George J. Heimerl and Arthur J. McEvily, Jr. October 1957. 31p. diagrs., tab. (NACA TN 4112)

INVESTIGATION OF THE COMPRESSIVE STRENGTH AND CREEP OF 7075-T6 ALUMINUM-ALLOY PLATES AT ELEVATED TEMPERATURES. William D. Deveikis. November 1957. 28p. diagrs., photos., tabs. (NACA TN 4111)

CREEP DEFORMATION PATTERNS OF JOINTS UNDER BEARING AND TENSILE LOADS. E. G. Bodine, R. L. Carlson, and G. K. Manning, Battelle Memorial Institute. December 1957. 36p. diagrs., tabs. (NACA TN 4138)

A VARIATIONAL THEOREM FOR CREEP WITH APPLICATIONS TO PLATES AND COLUMNS. J. Lyell Sanders, Jr., Harvey G. McComb, Jr., and Floyd R. Schlechte. 1958. ii, 7p. diagrs. (NACA Rept. 1342. Supersedes TN 4003)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. 1958. ii, 6p. diagrs., tab. (NACA Rept. 1343. Supersedes TN 4000)

CREEP OF ALUMINUM-COPPER ALLOYS DURING AGE HARDENING. E. E. Underwood, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. February 1958. 73p. diagrs., photos., tabs. (NACA TN 4036)

EFFECT OF OVERHEATING ON CREEP-RUPTURE PROPERTIES OF M-252 ALLOY. John P. Rowe and J. W. Freeman, University of Michigan. March 1958. 83p. diagrs., photos., tabs. (NACA TN 4224)

EFFECT OF PRIOR AIR FORCE OVERTEMPERATURE OPERATION ON LIFE OF J47 BUCKETS EVALUATED IN A SEA-LEVEL CYCLIC ENGINE TEST. Robert A. Signorelli, James R. Johnston, and Floyd B. Garrett. April 1958. 41p. diagrs., photos., tabs. (NACA TN 4263)

COMPRESSIVE STRENGTH AND CREEP OF 17-7 PH STAINLESS-STEEL PLATES AT ELEVATED TEMPERATURES. Bland A. Stein. July 1958. 33p. diagrs., photos., tabs. (NACA TN 4296)

TRANSGRANULAR AND INTERGRANULAR FRACTURE OF INGOT IRON DURING CREEP. L. A. Shepard and W. H. Giedt, University of California, Berkeley. August 1958. 26p. diagrs., photos., tabs. (NACA TN 4285)

MECHANISM OF BENEFICIAL EFFECTS OF BORON AND ZIRCONIUM ON CREEP-RUPTURE PROPERTIES OF A COMPLEX HEAT-RESISTANT ALLOY. R. F. Decker and J. W. Freeman, University of Michigan. August 1958. 54p. diagrs., photos., tabs. (NACA TN 4286)

EFFECT OF PRECIPITATE PARTICLES ON CREEP OF ALUMINUM-COPPER ALLOYS DURING AGE HARDENING. E. E. Underwood, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. September 1958. 56p. diagrs., photos., tabs. (NACA TN 4372)

A PHENOMENOLOGICAL THEORY FOR THE TRANSIENT CREEP OF METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. September 1958. 31p. diagrs., tabs. (NACA TN 4396)

ANALYSIS OF THE CREEP BEHAVIOR OF A SQUARE PLATE LOADED IN EDGE COMPRESSION. Harvey G. McComb, Jr. September 1958. 42p. diagrs. (NACA TN 4398)

THE THEORY OF DIFFUSION IN STRAINED SYSTEMS. Louis A. Girifalco and Hubert H. Grimes. September 1958. (i), 49p. diagrs., tabs. (NACA TN 4408)

(5.2.4)
STRESS-RUPTURE

COOPERATIVE INVESTIGATION OF RELATIONSHIP BETWEEN STATIC AND FATIGUE PROPERTIES OF WROUGHT N-155 ALLOY AT ELEVATED TEMPERATURES. NACA Subcommittee on Power Plant Materials. 1956. ii, 35p. diagrs., photos., tabs. (NACA Rept. 1288. Supersedes TN 3216)

INVESTIGATION OF A CERMET GAS-TURBINE-BLADE MATERIAL OF TITANIUM CARBIDE INFILTRATED WITH HASTALLOY C. Charles A. Hoffman. January 1956. 23p. diagrs., photos., tab. (NACA RM E55H12)

PERFORMANCE OF INCONEL 739 BUCKETS IN J33-9 TURBOJET ENGINE. C. A. Gyorgak and J. R. Johnston. October 1956. 19p. diagrs., photos., tabs. (NACA RM E56E24)

EXPERIMENTAL INVESTIGATION OF CERMET TURBINE BLADES IN AN AXIAL-FLOW TURBOJET ENGINE. William C. Morgan and George C. Deutsch. October 1957. 20p. photos., tab. (NACA TN 4030)

GENERALIZED MASTER CURVES FOR CREEP AND RUPTURE. George J. Heimerl and Arthur J. McEvily, Jr. October 1957. 31p. diagrs., tab. (NACA TN 4112)

EFFECT OF OVERHEATING ON CREEP-RUPTURE PROPERTIES OF S-816 ALLOY AT 1,500° F. John P. Rowe and J. W. Freeman, University of Michigan. December 1957. 75p. diagrs., photos., tabs. (NACA TN 4081)

EFFECT OF OVERHEATING ON CREEP-RUPTURE PROPERTIES OF HS-31 ALLOY AT 1,500° F. John P. Rowe and J. W. Freeman, University of Michigan. December 1957. 78p. diagrs., photos., tabs. (NACA TN 4083)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. 1958. ii, 6p. diagrs., tab. (NACA Rept. 1343. Supersedes TN 4000)

EFFECT OF ENVIRONMENTS OF SODIUM HYDROXIDE, AIR, AND ARGON ON THE STRESS-RUPTURE PROPERTIES OF NICKEL AT 1500° F. Howard T. McHenry and H. B. Probst. January 1958. 23p. diagrs., photos., tab. (NACA TN 3987)

ELEVATED-TEMPERATURE COMBINED STRESS-RUPTURE PLUS FATIGUE STRENGTH OF WASPALOY HAVING DIFFERENT AGING TREATMENTS AND/OR MOLYBDENUM CONTENTS. C. A. Hoffman and M. B. Hornak. February 1958. 21p. diagrs., photos., tabs. (NACA RM E57K22a)

INFLUENCE OF HEAT TREATMENT ON MICROSTRUCTURE AND HIGH-TEMPERATURE PROPERTIES OF A NICKEL-BASE PRECIPITATION-HARDENING ALLOY. R. F. Decker, John P. Rowe, W. C. Bigelow, and J. W. Freeman, University of Michigan. July 1958. 53p. diagrs., photos., tabs. (NACA TN 4329)

TRANSGRANULAR AND INTERGRANULAR FRACTURE OF INGOT IRON DURING CREEP. L. A. Shepard and W. H. Giedt, University of California, Berkeley. August 1958. 26p. diagrs., photos., tabs. (NACA TN 4285)

MECHANISM OF BENEFICIAL EFFECTS OF BORON AND ZIRCONIUM ON CREEP-RUPTURE PROPERTIES OF A COMPLEX HEAT-RESISTANT ALLOY. R. F. Decker and J. W. Freeman, University of Michigan. August 1958. 54p. diagrs., photos., tabs. (NACA TN 4286)

THERMAL FATIGUE OF DUCTILE MATERIALS. II - EFFECT OF CYCLIC THERMAL STRESSING ON THE STRESS-RUPTURE LIFE AND DUCTILITY OF S-816 AND INCONEL 550. Francis J. Clauss and James W. Freeman. September 1958. 43p. diagrs., photos. (NACA TN 4165)

THE THEORY OF DIFFUSION IN STRAINED SYSTEMS. Louis A. Girifalco and Hubert H. Grimes. September 1958. (i), 49p. diagrs., tabs. (NACA TN 4408)

(5.2.5) FATIGUE

COOPERATIVE INVESTIGATION OF RELATIONSHIP BETWEEN STATIC AND FATIGUE PROPERTIES OF WROUGHT N-155 ALLOY AT ELEVATED TEMPERATURES. NACA Subcommittee on Power Plant Materials. 1956. ii, 35p. diagrs., photos., tabs. (NACA Rept. 1288. Supersedes TN 3216)

STUDIES OF STRUCTURAL FAILURE DUE TO ACOUSTIC LOADING. Robert W. Hess, Robert W. Fralich, and Harvey H. Hubbard. July 1957. 11p. diagrs., tab. (NACA TN 4050)

EFFECT OF CRYSTAL ORIENTATION ON FATIGUE-CRACK INITIATION IN POLYCRYSTALLINE ALUMINUM ALLOYS. J. G. Weinberg and J. A. Bennett, National Bureau of Standards. August 1957. 22p. diagrs., photos., tabs. (NACA TN 3990)

INVESTIGATION OF SOME MECHANICAL PROPERTIES OF THERMENOL COMPRESSOR BLADES. Donald F. Johnson. October 1957. 14p. diagrs., photo. (NACA TN 4097)

EFFECT OF LUBRICANT VISCOSITY ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. October 1957. 25p. diagrs., photo., tabs. (NACA TN 4101)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. VARIABLE-AMPLITUDE TESTS WITH A GUST-LOADS SPECTRUM. Richard E. Whaley. November 1957. 43p. diagrs., photos., tabs. (NACA TN 4132)

FATIGUE BEHAVIOR OF AIRCRAFT STRUCTURAL BEAMS. W. S. Hyler, H. G. Popp, D. N. Gideon, S. A. Gordon, and H. J. Grover, Battelle Memorial Institute. January 1958. 60p. diagrs., photos., tabs. (NACA TN 4137)

EFFECT OF TEMPERATURE ON ROLLING-CONTACT FATIGUE LIFE WITH LIQUID AND DRY POWDER LUBRICANTS. Thomas L. Carter. January 1958. 40p. diagrs., photos., tabs. (NACA TN 4163)

ELEVATED-TEMPERATURE COMBINED STRESS-RUPTURE PLUS FATIGUE STRENGTH OF WASPALOY HAVING DIFFERENT AGING TREATMENTS AND/OR MOLYBDENUM CONTENTS. C. A. Hoffman and M. B. Hornak. February 1958. 21p. diagrs., photos., tabs. (NACA RM E57K22a)

EFFECT OF LUBRICANT BASE STOCK ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. February 1958. 28p. diagrs., tab. (NACA TN 4161)

EFFECT OF FIBER ORIENTATION IN RACES AND BALLS UNDER ROLLING-CONTACT FATIGUE CONDITIONS. Thomas L. Carter. February 1958. 37p. diagrs., photos., tabs. (NACA TN 4216)

PRELIMINARY STUDIES OF ROLLING-CONTACT FATIGUE LIFE OF HIGH-TEMPERATURE BEARING MATERIALS. Thomas L. Carter. April 1958. 27p. diagrs., tab. (NACA RM E57K12)

FURTHER INVESTIGATION OF FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath and Herbert A. Leybold. June 1958. 23p. diagrs., tabs. (NACA TN 4246)

THERMAL FATIGUE OF DUCTILE MATERIALS. I - EFFECT OF VARIATIONS IN THE TEMPERATURE CYCLE ON THE THERMAL-FATIGUE LIFE OF S-816 AND INCONEL 550. Francis J. Clauss and James W. Freeman. September 1958. 61p. diagrs., photos. (NACA TN 4160)

THERMAL FATIGUE OF DUCTILE MATERIALS. II - EFFECT OF CYCLIC THERMAL STRESSING ON THE STRESS-RUPTURE LIFE AND DUCTILITY OF S-816 AND INCONEL 550. Francis J. Clauss and James W. Freeman. September 1958. 43p. diagrs., photos. (NACA TN 4165)

CUMULATIVE FATIGUE DAMAGE AT ELEVATED TEMPERATURE. William K. Rey, University of Alabama. September 1958. 53p. diagrs., tabs. (NACA TN 4284)

AN INVESTIGATION OF THE EFFECTS OF ATMOSPHERIC CORROSION ON THE FATIGUE LIFE OF ALUMINUM ALLOYS. Herbert A. Leybold, Herbert F. Hardrath, and Robert L. Moore. September 1958. 17p. diagrs., photo., tabs. (NACA TN 4331)

SOME OBSERVATIONS RELATING TO RECOVERY OF INTERNAL FRICTION DURING FATIGUE OF ALUMINUM. S. R. Valluri, California Institute of Technology. September 1958. 30p. diagrs., tab. (NACA TN 4371)

THE RATE OF FATIGUE-CRACK PROPAGATION IN TWO ALUMINUM ALLOYS. Arthur J. McEvily, Jr., and Walter Illg. September 1958. 46p. diagrs., tabs. (NACA TN 4394)

(5.2.6) SHEAR

RELATIONSHIP OF METAL SURFACES TO HEAT-AGING PROPERTIES OF ADHESIVE BONDS. J. M. Black and R. F. Blomquist, Forest Products Laboratory. September 1958. 30p. diagrs., tabs. (NACA TN 4287)

(5.2.7) FLEXURAL

COOPERATIVE INVESTIGATION OF RELATIONSHIP BETWEEN STATIC AND FATIGUE PROPERTIES OF WROUGHT N-155 ALLOY AT ELEVATED TEMPERATURES. NACA Subcommittee on Power Plant Materials. 1956. ii, 35p. diagrs., photos., tabs. (NACA Rept. 1288. Supersedes TN 3216)

INVESTIGATION OF SOME MECHANICAL PROPERTIES OF THERMENOL COMPRESSOR BLADES. Donald F. Johnson. October 1957. 14p. diagrs., photo. (NACA TN 4097)

(5.2.8) CORROSION RESISTANCE

PRELIMINARY INVESTIGATION OF CORROSION BY MOLTEN SODIUM HYDROXIDE FLOWING IN TUBES OF AISI 347 STAINLESS STEEL, INCONEL, AND NICKEL HAVING AVERAGE OUTER-WALL TEMPERATURES OF 1500° F AND A CIRCUMFERENTIAL TEMPERATURE GRADIENT OF 20° F. Don R. Mosher and Leland G. Desmon. March 1952. 20p. diagrs., tabs. (NACA RM E51J16)

STATIC CRUCIBLE INVESTIGATION OF CORROSION AND MASS-TRANSFER OF NICKEL IN MOLTEN SODIUM HYDROXIDE WITH VARIOUS ADDITIVES. Americo F. Forestieri and William F. Zelezny. August 1953. 25p. diagrs., tabs. (NACA RM E53F12)

SOME OBSERVATIONS ON STRESS-CORROSION CRACKING OF SINGLE CRYSTALS OF AZ61X MAGNESIUM ALLOY. F. Meller and M. Metzger, Columbia University. July 1957. 23p. diagr., photos., tabs. (NACA TN 4019)

THE MECHANISM OF THERMAL-GRADIENT MASS TRANSFER IN THE SODIUM HYDROXIDE - NICKEL SYSTEM. Charles E. May. September 1957. 54p. diagrs., tabs. (NACA TN 4089)

INVESTIGATION OF SOME MECHANICAL PROPERTIES OF THERMENOL COMPRESSOR BLADES. Donald F. Johnson. October 1957. 14p. diagrs., photo. (NACA TN 4097)

EFFECT OF ENVIRONMENTS OF SODIUM HYDROXIDE, AIR, AND ARGON ON THE STRESS-RUPTURE PROPERTIES OF NICKEL AT 1500° F. Howard T. McHenry and H. B. Probst. January 1958. 23p. diagrs., photos., tab. (NACA TN 3987)

CORROSION RESISTANCE OF NICKEL ALLOYS IN MOLTEN SODIUM HYDROXIDE. H. B. Probst, C. E. May, and Howard T. McHenry. January 1958. 26p. diagr., photos., tabs. (NACA TN 4157)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

AN INVESTIGATION OF THE EFFECTS OF ATMOSPHERIC CORROSION ON THE FATIGUE LIFE OF ALUMINUM ALLOYS. Herbert A. Leybold, Herbert F. Hardrath, and Robert L. Moore. September 1958. 17p. diagrs., photo., tabs. (NACA TN 4331)

(5.2.9) STRUCTURE

INFLUENCE OF ALLOYING UPON GRAIN-BOUNDARY CREEP. F. N. Rhines, W. E. Bond, and M. A. Kissel, Carnegie Institute of Technology. 1957. ii, 6p. diagrs., tab. (NACA Rept. 1331. Supersedes TN 3678)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. 1957. ii, 52p. diagrs., photos., tabs. (NACA Rept. 1341. Supersedes TN 3727)

STUDY OF THE MICRO-NONUNIFORMITY OF THE PLASTIC DEFORMATION OF STEEL. (Issledovanie mikroneodnorodnosti plasticheskoi deformatsii stali.) B. B. Chechulin. August 1957. 21p. diagrs., tab. (NACA TM 1411. Translation from Fizika Metallov i Metallovedenie, v.1, no.2, 1955, p.251-260.)

STRENGTH AND DUCTILITY OF BAINITIC STEELS. Donald H. Desy, J. O. Brittain, and M. Gensamer, Columbia University. August 1957. 32p. diagrs., photos., tabs. (NACA TN 3989)

ABNORMAL GRAIN GROWTH IN M-252 AND S-816 ALLOYS. R. F. Decker, A. I. Rush, A. G. Dano, and J. W. Freeman, University of Michigan. November 1957. 61p. diagrs., photos., tabs. (NACA TN 4084)

ABNORMAL GRAIN GROWTH IN NICKEL-BASE HEAT-RESISTANT ALLOYS. R. F. Decker, A. I. Rush, A. G. Dano, and J. W. Freeman, University of Michigan. December 1957. 70p. diagrs., photos., tabs. (NACA TN 4082)

CREEP OF ALUMINUM-COPPER ALLOYS DURING AGE HARDENING. E. E. Underwood, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. February 1958. 73p. diagrs., photos., tabs. (NACA TN 4036)

INFLUENCE OF HEAT TREATMENT ON MICROSTRUCTURE AND HIGH-TEMPERATURE PROPERTIES OF A NICKEL-BASE PRECIPITATION-HARDENING ALLOY. R. F. Decker, John P. Rowe, W. C. Bigelow, and J. W. Freeman, University of Michigan. July 1958. 53p. diagrs., photos., tabs. (NACA TN 4329)

INTERNAL-FRICTION STUDY OF ALUMINUM ALLOY CONTAINING 4 WEIGHT PERCENT COPPER. B. S. Berry and A. S. Nowick, Yale University. August 1958. 88p. diagrs., tabs. (NACA TN 4225)

MECHANISM OF BENEFICIAL EFFECTS OF BORON AND ZIRCONIUM ON CREEP-RUPTURE PROPERTIES OF A COMPLEX HEAT-RESISTANT ALLOY. R. F. Decker and J. W. Freeman, University of Michigan. August 1958. 54p. diagrs., photos., tabs. (NACA TN 4286)

STUDY OF HYDROGEN EMBRITTLEMENT OF IRON BY INTERNAL-FRICTION METHODS. R. E. Maringer, E. B. Swetnam, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. September 1958. 62p. diagrs., photos., tab. (NACA TN 4328)

EFFECT OF PRECIPITATE PARTICLES ON CREEP OF ALUMINUM-COPPER ALLOYS DURING AGE HARDENING. E. E. Underwood, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. September 1958. 56p. diagrs., photos., tabs. (NACA TN 4372)

(5.2.11) THERMAL

INTERFACE THERMAL CONDUCTANCE OF TWENTY-SEVEN RIVETED AIRCRAFT JOINTS. Martin E. Barzelay and George F. Holloway, Syracuse University. July 1957. 23p. diagrs., tabs. (NACA TN 3991)

TENSILE PROPERTIES OF INCONEL X SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. Ivo M. Kurg. August 1957. 20p. diagrs., tabs. (NACA TN 4065)

THEORY AND APPARATUS FOR MEASUREMENT OF EMISSIVITY FOR RADIATIVE COOLING OF HYPERSONIC AIRCRAFT WITH DATA FOR INCONEL AND INCONEL X. William J. O'Sullivan, Jr., and William R. Wade. October 1957. ii, 48p. diagrs., photos. (NACA TN 4121)

THE USEFUL HEAT CAPACITY OF SEVERAL MATERIALS FOR BALLISTIC NOSE-CONE CONSTRUCTION. Jackson R. Stalder. November 1957. 19p. diagrs. (NACA TN 4141)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. 1958. ii, 6p. diagrs., tab. (NACA Rept. 1343. Supersedes TN 4000)

MEASUREMENTS OF TOTAL HEMISPHERICAL EMISSIVITY OF VARIOUS OXIDIZED METALS AT HIGH TEMPERATURE. William R. Wade. March 1958. 43p. diagrs., photos. (NACA TN 4206)

EFFECT OF OVERHEATING ON CREEP-RUPTURE PROPERTIES OF M-252 ALLOY. John P. Rowe and J. W. Freeman, University of Michigan. March 1958. 83p. diagrs., photos., tabs. (NACA TN 4224)

EFFECT OF PRIOR AIR FORCE OVERTEMPERATURE OPERATION ON LIFE OF J47 BUCKETS EVALUATED IN A SEA-LEVEL CYCLIC ENGINE TEST. Robert A. Signorelli, James R. Johnston, and Floyd B. Garrett. April 1958. 41p. diagrs., photos., tabs. (NACA TN 4263)

EFFECT OF TEMPERATURE ON DYNAMIC MODULUS OF ELASTICITY OF SOME STRUCTURAL ALLOYS. Louis F. Vosteen. August 1958. 19p. diagrs., tabs. (NACA TN 4348)

THERMAL FATIGUE OF DUCTILE MATERIALS. I - EFFECT OF VARIATIONS IN THE TEMPERATURE CYCLE ON THE THERMAL-FATIGUE LIFE OF S-816 AND INCONEL 550. Francis J. Clauss and James W. Freeman. September 1958. 61p. diagrs., photos. (NACA TN 4160)

THERMAL FATIGUE OF DUCTILE MATERIALS. II - EFFECT OF CYCLIC THERMAL STRESSING ON THE STRESS-RUPTURE LIFE AND DUCTILITY OF S-816 AND INCONEL 550. Francis J. Clauss and James W. Freeman. September 1958. 43p. diagrs., photos. (NACA TN 4165)

(5.2.12) MULTIAXIAL STRESS

COOPERATIVE INVESTIGATION OF RELATIONSHIP BETWEEN STATIC AND FATIGUE PROPERTIES OF WROUGHT N-155 ALLOY AT ELEVATED TEMPERATURES. NACA Subcommittee on Power Plant Materials. 1956. ii, 35p. diagrs., photos., tabs. (NACA Rept. 1288. Supersedes TN 3216)

(5.2.13) PLASTICITY

INFLUENCE OF ALLOYING UPON GRAIN-BOUNDARY CREEP. F. N. Rhines, W. E. Bond, and M. A. Kissel, Carnegie Institute of Technology. 1957. ii, 6p. diagrs., tab. (NACA Rept. 1331. Supersedes TN 3678)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. 1957. ii, 52p. diagrs., photos., tabs. (NACA Rept. 1341. Supersedes TN 3727)

STUDY OF THE MICRO-NONUNIFORMITY OF THE PLASTIC DEFORMATION OF STEEL. (Issledovanie mikroneodnorodnosti plasticheskoi deformatsii stali.) B. B. Chechulin. August 1957. 21p. diagrs., tab. (NACA TM 1411. Translation from Fizika Metallov i Metallovedenie, v.1, no.2, 1955, p.251-260.)

ABNORMAL GRAIN GROWTH IN M-252 AND S-816 ALLOYS. R. F. Decker, A. I. Rush, A. G. Dano, and J. W. Freeman, University of Michigan. November 1957. 61p. diagrs., photos., tabs. (NACA TN 4084)

ABNORMAL GRAIN GROWTH IN NICKEL-BASE HEAT-RESISTANT ALLOYS. R. F. Decker, A. I. Rush, A. G. Dano, and J. W. Freeman, University of Michigan. December 1957. 70p. diagrs., photos., tabs. (NACA TN 4082)

A VARIATIONAL THEOREM FOR CREEP WITH APPLICATIONS TO PLATES AND COLUMNS. J. Lyell Sanders, Jr., Harvey G. McComb, Jr., and Floyd R. Schlechte. 1958. ii, 7p. diagrs. (NACA Rept. 1342. Supersedes TN 4003)

TRANSGRANULAR AND INTERGRANULAR FRACTURE OF INGOT IRON DURING CREEP. L. A. Shepard and W. H. Giedt, University of California, Berkeley. August 1958. 26p. diagrs., photos., tabs. (NACA TN 4285)

STUDY OF HYDROGEN EMBRITTLEMENT OF IRON BY INTERNAL-FRICTION METHODS. R. E. Maringer, E. B. Swetnam, L. L. Marsh, and G. K. Manning, Battelle Memorial Institute. September 1958. 62p. diagrs., photos., tab. (NACA TN 4328)

SOME OBSERVATIONS RELATING TO RECOVERY OF INTERNAL FRICTION DURING FATIGUE OF ALUMINUM. S. R. Valluri, California Institute of Technology. September 1958. 30p. diagrs., tab. (NACA TN 4371)

THE THEORY OF DIFFUSION IN STRAINED SYSTEMS. Louis A. Girifalco and Hubert H. Grimes. September 1958. (i), 49p. diagrs., tabs. (NACA TN 4408)

(5.3)
Operating Stresses and Conditions

ENGINE PERFORMANCE OF ALLOY 73J TURBINE BLADES CAST TO PREDETERMINED GRAIN SIZES. James R. Johnston, Charles A. Gyorgak, and John W. Weeton. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E05)

EFFECT OF LUBRICANT VISCOSITY ON ROLLING-CONTACT FATIGUE LIFE. Thomas L. Carter. October 1957. 25p. diagrs., photo., tabs. (NACA TN 4101)

(5.3.2)
PROPULSION SYSTEM

EFFECTIVENESS OF A TURBOJET TUBULAR COMBUSTOR IN SCREENING THE TURBINE FROM FOREIGN OBJECTS. Patrick T. Chiarito. July 1955. 20p. diagrs., photos. (NACA RM E55E16)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

FABRICATION AND ENDURANCE OF AIR-COOLED STRUT-SUPPORTED TURBINE BLADES WITH STRUTS CAST OF X-40 ALLOY. Eugene F. Schum, Francis S. Stepka, and Robert E. Oldrieve. April 1956. 39p. diagrs., photos., tabs. (NACA RM E56A12)

FABRICATION TECHNIQUES AND HEAT-TRANSFER RESULTS FOR CAST-CORED AIR-COOLED TURBINE BLADES. John C. Freche and Robert E. Oldrieve. June 1956. 35p. diagrs., photos. (NACA RM E56C06)

EXPERIMENTAL INVESTIGATION OF CERMET TURBINE BLADES IN AN AXIAL-FLOW TURBOJET ENGINE. William C. Morgan and George C. Deutsch. October 1957. 20p. photos., tab. (NACA TN 4030)

INVESTIGATION OF SOME MECHANICAL PROPERTIES OF THERMENOL COMPRESSOR BLADES. Donald F. Johnson. October 1957. 14p. diagrs., photo. (NACA TN 4097)

APPLICATION OF A HIGH-TEMPERATURE STATIC STRAIN GAGE TO THE MEASUREMENT OF THERMAL STRESSES IN A TURBINE STATOR VANE. R. H. Kemp, C. R. Morse, and M. H. Hirschberg. March 1958. 36p. diagrs., photos., tab. (NACA TN 4215)

EFFECT OF PRIOR AIR FORCE OVERTEMPERATURE OPERATION ON LIFE OF J47 BUCKETS EVALUATED IN A SEA-LEVEL CYCLIC ENGINE TEST. Robert A. Signorelli, James R. Johnston, and Floyd B. Garrett. April 1958. 41p. diagrs., photos., tabs. (NACA TN 4263)

MECHANISM OF BENEFICIAL EFFECTS OF BORON AND ZIRCONIUM ON CREEP-RUPTURE PROPERTIES OF A COMPLEX HEAT-RESISTANT ALLOY. R. F. Decker and J. W. Freeman, University of Michigan. August 1958. 54p. diagrs., photos., tabs. (NACA TN 4286)

(6)
METEOROLOGY

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METEOROLOGY

(6.1)
Atmosphere

MACH NUMBER MEASUREMENTS AND CALIBRATIONS DURING FLIGHT AT HIGH SPEEDS AND AT HIGH ALTITUDES INCLUDING DATA FOR THE D-558-II RESEARCH AIRPLANE. Cyril D. Brunn and Wendell H. Stillwell. March 1956. 31p. diagrs., tabs. (NACA RM H55J18)

ATMOSPHERIC TEMPERATURE OBSERVATIONS TO 100,000 FEET FOR SEVERAL CLIMATOLOGICAL REGIONS OF THE NORTHERN HEMISPHERE. H. B. Tolefson. November 1957. 26p. diagr., tab. (NACA TN 4169)

TABLES AND GRAPHS OF NORMAL-SHOCK PARAMETERS AT HYPERSONIC MACH NUMBERS AND SELECTED ALTITUDES. Paul W. Huber. September 1958. 26p. diagrs., tabs. (NACA TN 4352)

(6.1.2)
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EXPERIMENTAL RESULTS FROM A TEST IN ROUGH AIR AT HIGH SUBSONIC SPEEDS OF A TAILLESS ROCKET MODEL HAVING CRUCIFORM TRIANGULAR WINGS, AND A NOTE ON THE CALCULATION OF MEAN SQUARE LOADS OF AIRCRAFT IN CONTINUOUS ROUGH AIR. A. James Vitale and Jesse L. Mitchell. April 1956. 25p. diagrs., photo., tab. (NACA RM L55L28)

RESULTS FROM AN INVESTIGATION IN ROUGH AIR AT MACH NUMBERS FROM 0.84 TO 1.67 OF A TAILLESS ROCKET MODEL HAVING 60° TRIANGULAR WINGS. A. James Vitale. July 1956. 16p. diagrs., photo., tab. (NACA RM L56F07a)

AIRPLANE MEASUREMENTS OF ATMOSPHERIC TURBULENCE FOR ALTITUDES BETWEEN 20,000 AND 55,000 FEET OVER THE WESTERN PART OF THE UNITED STATES. Thomas L. Coleman and Emilie C. Coe. August 1957. 16p. diagrs., photo., tab. (NACA RM L57G02)

A CORRELATION OF RESULTS OF A FLIGHT INVESTIGATION WITH RESULTS OF AN ANALYTICAL STUDY OF EFFECTS OF WING FLEXIBILITY ON WING STRAINS DUE TO GUSTS. C. C. Shufflebarger, Chester B. Payne, and George L. Cahen. August 1957. 40p. diagrs., tab. (NACA TN 4071)

ANALYSIS OF OPERATIONAL AIRLINE DATA TO SHOW THE EFFECTS OF AIRBORNE WEATHER RADAR ON THE GUST LOADS AND OPERATING PRACTICES OF TWIN-ENGINE SHORT-HAUL TRANSPORT AIRPLANES. Martin R. Copp and Walter G. Walker. November 1957. 18p. diagrs., tabs. (NACA TN 4129)

SUMMARY OF LOCATIONS, EXTENTS, AND INTENSITIES OF TURBULENT AREAS ENCOUNTERED DURING FLIGHT INVESTIGATIONS OF THE JET STREAM FROM JANUARY 7, 1957 TO APRIL 28, 1957. Martin R. Copp. March 1958. 8p. tab. (NACA RM L57L12)

AN EVALUATION OF EFFECTS OF FLEXIBILITY ON WING STRAINS IN ROUGH AIR FOR A LARGE SWEPT-WING AIRPLANE BY MEANS OF EXPERIMENTALLY DETERMINED FREQUENCY-RESPONSE FUNCTIONS WITH AN ASSESSMENT OF RANDOM-PROCESS TECHNIQUES EMPLOYED. Thomas L. Coleman, Harry Press, and May T. Meadows. July 1958. ii, 74p. diagrs., photo., tabs. (NACA TN 4291)

(6.1.2.1)
STRUCTURE

MEASUREMENTS OF THE MOTIONS OF A LARGE SWEPT-WING AIRPLANE IN ROUGH AIR. Richard H. Rhyne. September 1958. 22p. diagrs., photo., tabs. (NACA TN 4310)

(6.1.2.2)
FREQUENCY

MEASUREMENTS OF THE MOTIONS OF A LARGE SWEPT-WING AIRPLANE IN ROUGH AIR. Richard H. Rhyne. September 1958. 22p. diagrs., photo., tabs. (NACA TN 4310)

AN APPROACH TO THE PROBLEM OF ESTIMATING SEVERE AND REPEATED GUST LOADS FOR MISSILE OPERATIONS. Harry Press and Roy Steiner. September 1958. 44p. diagrs., tab. (NACA TN 4332)

(6.1.2.3)
TURBULENCE

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. 1957. ii, 19p. diagrs., tabs. (NACA Rept. 1321. Supersedes TN 3864.)

ON THE STATISTICAL THEORY OF TURBULENCE. (Zur statistischen Theorie der Turbulenz). W. Heisenberg. January 1958. 36p. diagrs. (NACA TM 1431. Translation from Zeitschrift für Physik, v.124, 1948, p.628-657)

A METHOD FOR THE CALCULATION OF THE LATERAL RESPONSE OF AIRPLANES TO RANDOM TURBULENCE. John M. Eggleston and William H. Phillips. February 1958. 34p. diagrs., tab. (NACA TN 4196)

AN APPROACH TO THE PROBLEM OF ESTIMATING SEVERE AND REPEATED GUST LOADS FOR MISSILE OPERATIONS. Harry Press and Roy Steiner. September 1958. 44p. diagrs., tab. (NACA TN 4332)

(6.1.2.4) ALLEVIATION

A THEORETICAL INVESTIGATION OF THE EFFECT OF AUXILIARY DAMPING ON THE LONGITUDINAL RESPONSE OF A TRANSONIC BOMBER CONFIGURATION IN FLIGHT THROUGH CONTINUOUS TURBULENCE. T. F. Bridgland, Jr. March 1955. 26p. diagrs., tab. (NACA RM L54K15a)

ON THE MINIMIZATION OF AIRPLANE RESPONSES TO RANDOM GUSTS. Murray Tobak. October 1957. 71p. diagrs. (NACA TN 3290)

INVESTIGATION OF DEFLECTORS AS GUST ALLEVIATORS ON A 0.09-SCALE MODEL OF THE BELL X-5 AIRPLANE WITH VARIOUS WING SWEEP ANGLES FROM 20° TO 60° AT MACH NUMBERS FROM 0.40 TO 0.90. Delwin R. Croom and Jarrett K. Huffman. November 1957. 28p. diagrs. (NACA TN 4175)

AN ANALYTICAL INVESTIGATION OF THE GUST-ALLEVIATING PROPERTIES OF A SIMPLE PITCH DAMPER. Norman L. Crabill. December 1957. 47p. diagrs., tab. (NACA TN 4173)

(6.1.3) ELECTRICITY

LIGHTNING HAZARDS TO AIRCRAFT FUEL TANKS. J. D. Robb, E. L. Hill, M. M. Newman, and J. R. Stahmann, Lightning and Transients Research Institute. September 1958. 58p. diagrs., photos., tab. (NACA TN 4326)

(6.2)
Ice Formation

INVESTIGATION OF POROUS GAS-HEATED LEADING-EDGE SECTION FOR ICING PROTECTION OF A DELTA WING. Dean T. Bowden. January 1955. 54p. diagrs., photos., tab. (NACA RM E54I03)

CLOUD-DROPLET INGESTION IN ENGINE INLETS WITH INLET VELOCITY RATIOS OF 1.0 AND 0.7. Rinaldo J. Brun. 1957. ii, 35p. diagrs., tab. (NACA Rept. 1317. Supersedes TN 3593)

IMPINGEMENT OF CLOUD DROPLETS ON 36.5-PERCENT-THICK JOUKOWSKI AIRFOIL AT ZERO ANGLE OF ATTACK AND DISCUSSION OF USE AS CLOUD MEASURING INSTRUMENT IN DYE-TRACER TECHNIQUE. R. J. Brun and Dorothea E. Vogt. September 1957. 52p. diagrs., tabs. (NACA TN 4035)

INVESTIGATION OF HEAT TRANSFER FROM A STATIONARY AND ROTATING CONICAL FORE-BODY. Robert S. Ruggeri and James P. Lewis. October 1957. 30p. diagrs., photo., tab. (NACA TN 4093)

EXPERIMENTAL DROPLET IMPINGEMENT ON FOUR BODIES OF REVOLUTION. James P. Lewis and Robert S. Ruggeri. December 1957. 61p. diagrs., photos. (NACA TN 4092)

A FLIGHT EVALUATION AND ANALYSIS OF THE EFFECT OF ICING CONDITIONS ON THE ZPG-2 AIRSHIP. William Lewis and Porter J. Perkins, Jr. April 1958. 66p. diagrs., photos., tab. (NACA TN 4220)

DROPLET IMPINGEMENT AND INGESTION BY SUPERSONIC NOSE INLET IN SUBSONIC TUNNEL CONDITIONS. Thomas F. Gelder. May 1958. 56p. diagrs., photos. (NACA TN 4268)

ICING FREQUENCIES EXPERIENCED DURING CLIMB AND DESCENT BY FIGHTER-INTERCEPTOR AIRCRAFT. Porter J. Perkins. July 1958. 30p. diagrs., tabs. (NACA TN 4314)

(7)
OPERATING PROBLEMS

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FLIGHT-DETERMINED BUFFET BOUNDARIES OF TEN AIRPLANES AND COMPARISONS WITH FIVE BUFFETING CRITERIA. Burnett L. Gadeberg and Howard L. Ziff. January 5, 1951. 44p. diagrs., photo., tab. (NACA RM A50I27)

ANALYTICAL STUDY OF THE EFFECT OF CENTER-OF-GRAVITY POSITION ON THE RESPONSE TO LONGITUDINAL CONTROL IN LANDING APPROACHES OF A SWEPT-WING AIRPLANE OF LOW ASPECT RATIO HAVING NO HORIZONTAL TAIL. Ralph W. Stone, Jr. October 1954. 35p. diagrs., tabs. (NACA RM L54H04)

STEADY-STATE AND SURGE CHARACTERISTICS OF A COMPRESSOR EQUIPPED WITH VARIABLE INLET GUIDE VANES OPERATING IN A TURBOJET ENGINE. Lewis E. Wallner and Robert J. Lubick. June 1955. 54p. diagrs., photos. (NACA RM E54I28)

SUMMARY OF SCALE-MODEL THRUST-REVERSER INVESTIGATION. John H. Povolny, Fred W. Steffen, and Jack G. McArdle. 1957. ii, 14p. diagrs., photos. (NACA Rept. 1314. Supersedes TN 3664)

REACTION OF FLUORINE WITH CARBON AS A MEANS OF FLUORINE DISPOSAL. Harold W. Schmidt. July 1957. 17p. diagrs., tab. (NACA RM E57E02)

SCREEN-TYPE NOISE REDUCTION DEVICES FOR GROUND RUNNING OF TURBOJET ENGINES. Willard D. Coles and Warren J. North. July 1957. 23p. diagrs., photos. (NACA TN 4033)

AIRPLANE MEASUREMENTS OF ATMOSPHERIC TURBULENCE FOR ALTITUDES BETWEEN 20,000 AND 55,000 FEET OVER THE WESTERN PART OF THE UNITED STATES. Thomas L. Coleman and Emilie C. Coe. August 1957. 16p. diagrs., photo., tab. (NACA RM L57G02)

ANALYSIS OF OPERATIONAL AIRLINE DATA TO SHOW THE EFFECTS OF AIRBORNE WEATHER RADAR ON THE GUST LOADS AND OPERATING PRACTICES OF TWIN-ENGINE SHORT-HAUL TRANSPORT AIRPLANES. Martin R. Copp and Walter G. Walker. November 1957. 18p. diagrs., tabs. (NACA TN 4129)

ATMOSPHERIC TEMPERATURE OBSERVATIONS TO 100,000 FEET FOR SEVERAL CLIMATOLOGICAL REGIONS OF THE NORTHERN HEMISPHERE. H. B. Tolefson. November 1957. 26p. diagr., tab. (NACA TN 4169)

SUMMARY OF LOCATIONS, EXTENTS, AND INTENSITIES OF TURBULENT AREAS ENCOUNTERED DURING FLIGHT INVESTIGATIONS OF THE JET STREAM FROM JANUARY 7, 1957 TO APRIL 28, 1957. Martin R. Copp. March 1958. 8p. tab. (NACA RM L57L12)

METHOD FOR DETERMINING THE NEED TO REWORK OR REPLACE COMPRESSOR ROTOR BLADES DAMAGED BY FOREIGN OBJECTS. Albert Kaufman. September 1958. 25p. diagrs., photo. (NACA TN 4324)

(7.1) Safety

WIND-TUNNEL INVESTIGATION OF THE STABILITY OF THE JETTISONABLE NOSE SECTION OF THE XS-2 AIRPLANE. Stanley H. Scher and Roscoe H. Goodwin. October 14, 1948. 19p. diagrs., photos., tabs. (NACA RM L8I14)

AN INVESTIGATION IN THE LANGLEY 20-FOOT FREE-SPINNING TUNNEL OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/30-SCALE MODEL OF THE BELL X-2 AIRPLANE. Lawrence J. Gale. July 20, 1949. 15p. diagrs., photo., tabs. (NACA RM L9G15a)

SUMMARY OF SPIN AND RECOVERY CHARACTERISTICS OF 12 MODELS OF FLYING-WING AND UNCONVENTIONAL-TYPE AIRPLANES. Ralph W. Stone, Jr., and Burton E. Hultz. March 1, 1951. 95p. diagrs., photo., tabs. (NACA RM L50L29)

FREE-SPINNING TUNNEL INVESTIGATION OF A 1/20-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE. Burton E. Hultz. December 26, 1951. 23p. diagrs., photos., tab. (NACA RM L51K12)

FREE-SPINNING-TUNNEL INVESTIGATION TO DETERMINE THE EFFECT OF SPINS AND RECOVERIES OF WING LEADING-EDGE CHORD-EXTENSIONS AND DROOPED LEADING-EDGE FLAPS ON SCALE MODELS OF TWO SWEPTBACK-WING FIGHTER AIRPLANES. Jack H. Wilson and Walter J. Klinar. May 1953. 28p. photo., diagrs., tabs. (NACA RM L53C06)

COMPARISON OF EFFECTS OF AILERONS AND COMBINATIONS OF SPOILER-SLOT-DEFLECTOR ARRANGEMENTS ON SPIN RECOVERY OF SWEPTBACK-WING MODEL HAVING MASS DISTRIBUTED ALONG THE FUSELAGE. Frederick M. Healy and Walter J. Klinar. November 1954. 18p. diagrs., photo., tabs. (NACA RM L54I14)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

SPINNING AND RELATED PROBLEMS AT HIGH ANGLES OF ATTACK FOR HIGH-SPEED AIRPLANES. Walter J. Klinar. March 1956. 8p. diagrs. (NACA RM L55L23a)

DYNAMIC MODEL INVESTIGATION OF TWO TAIL-SITTER VERTICALLY RISING AIRPLANES TO DETERMINE THE ALTITUDE REQUIRED TO APPROACH NORMAL-FLIGHT CONDITIONS AFTER POWER FAILURE IN HOVERING FLIGHT. Walter J. Klinar and L. Faye Wilkes. November 1956. 15p. diagrs., tabs. (NACA RM L56H29a)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. 1957. ii, 16p. diagrs., photos., tab. (NACA Rept. 1332. Supersedes TN 3777)

SPONTANEOUS FLAMMABILITY OF PENTABORANE AND PENTABORANE - 3-METHYLPENTANE BLENDS. Edward A. Fletcher. February 1957. 11p. diagrs., photos. (NACA RM E53I17)

FOREIGN-OBJECT RETENTION AND FLOW CHARACTERISTICS OF RETRACTABLE ENGINE-INLET SCREENS. Fred W. Steffen and Lewis A. Rodert. July 1957. 30p. diagrs., photos. (NACA RM E57A15)

REACTION OF FLUORINE WITH CARBON AS A MEANS OF FLUORINE DISPOSAL. Harold W. Schmidt. July 1957. 17p. diagrs., tab. (NACA RM E57E02)

ACCELERATION IN FIGHTER-AIRPLANE CRASHES. Loren W. Acker, Dugald O. Black, and Jacob C. Moser. November 1957. 78p. diagrs., photos. (NACA RM E57G11)

ACCELERATIONS IN TRANSPORT-AIRPLANE CRASHES. G. Merritt Preston and Gerard J. Pesman. February 1958. 76p. diagrs., photos., tab. (NACA TN 4158)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

LANDING AND TAXIING TESTS OVER VARIOUS TYPES OF RUNWAY LIGHTS. Robert C. Dreher and Sidney A. Batterson. August 1958. 39p. diagrs., photos., tabs. (NACA RM L58C28a)

METHOD FOR DETERMINING THE NEED TO REWORK OR REPLACE COMPRESSOR ROTOR BLADES DAMAGED BY FOREIGN OBJECTS. Albert Kaufman. September 1958. 25p. diagrs., photo. (NACA TN 4324)

RATE OF REACTION OF GASEOUS FLUORINE WITH WATER VAPOR AT 35° C. Vernon A. Slabey and Edward A. Fletcher. September 1958. 16p. diagrs., tabs. (NACA TN 4374)

(7.1.1) PILOT-ESCAPE TECHNIQUES

A WIND-TUNNEL INVESTIGATION OF THE STATIC STABILITY CHARACTERISTICS OF A 1/8-SCALE EJECTABLE PILOT-SEAT COMBINATION AT A MACH NUMBER OF 0.8. Floravante Visconti and Robert J. Nuber. December 1951. 29p. diagrs., photos. (NACA RM L51H08)

WIND-TUNNEL INVESTIGATION AT MACH NUMBERS FROM 0.6 TO 1.4 OF SEVERAL EJECTED PILOT-SEAT MODELS. James L. Summers. September 1958. 47p. diagrs., photo., tabs. (NACA RM A58E02)

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LIGHT DIFFUSION THROUGH HIGH-SPEED TURBULENT BOUNDARY LAYERS. Howard A. Stine and Warren Winovich. May 1956. 46p. diagrs., photos., tabs. (NACA RM A56B21)

WIND-TUNNEL INVESTIGATION OF A NUMBER OF TOTAL-PRESSURE TUBES AT HIGH ANGLES OF ATTACK. SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William Gracey. 1957. ii, 10p. diagrs., tab. (NACA Rept. 1303. Supersedes TN 3641)

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EXPERIMENTAL DROPLET IMPINGEMENT ON FOUR BODIES OF REVOLUTION. James P. Lewis and Robert S. Ruggeri. December 1957. 61p. diagrs., photos. (NACA TN 4092)

A FLIGHT EVALUATION AND ANALYSIS OF THE EFFECT OF ICING CONDITIONS ON THE ZPG-2 AIRSHIP. William Lewis and Porter J. Perkins, Jr. April 1958. 66p. diagrs., photos., tab. (NACA TN 4220)

(7.3.1)
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CLOUD-DROPLET INGESTION IN ENGINE INLETS WITH INLET VELOCITY RATIOS OF 1.0 AND 0.7. Rinaldo J. Brun. 1957. ii, 35p. diagrs., tab. (NACA Rept. 1317. Supersedes TN 3593)

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(7.3.3)
WINGS AND TAILS

INVESTIGATION OF POROUS GAS-HEATED LEADING-EDGE SECTION FOR ICING PROTECTION OF A DELTA WING. Dean T. Bowden. January 1955. 54p. diagrs., photos., tab. (NACA RM E54I03)

HEAT REQUIREMENTS FOR ICE PROTECTION OF A CYCLICALLY GAS-HEATED, 36° SWEPT AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT. Vernon H. Gray and Uwe H. von Glahn. May 1956. 73p. diagrs., photos., tabs. (NACA RM E56B23)

IMPINGEMENT OF CLOUD DROPLETS ON 36.5-PERCENT-THICK JOUKOWSKI AIRFOIL AT ZERO ANGLE OF ATTACK AND DISCUSSION OF USE AS CLOUD MEASURING INSTRUMENT IN DYE-TRACER TECHNIQUE. R. J. Brun and Dorothea E. Vogt. September 1957. 52p. diagrs., tabs. (NACA TN 4035)

CORRELATIONS AMONG ICE MEASUREMENTS, IMPINGEMENT RATES, ICING CONDITIONS, AND DRAG COEFFICIENTS FOR UNSWEPT NACA 65A004 AIRFOIL. Vernon H. Gray. February 1958. 45p. diagrs., photos., tabs. (NACA TN 4151)

AERODYNAMIC EFFECTS CAUSED BY ICING OF AN UNSWEPT NACA 65A004 AIRFOIL. Vernon H. Gray and Uwe H. von Glahn. February 1958. 47p. diagrs., photos., tabs. (NACA TN 4155)

(7.3.5)
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CLOUD-DROPLET INGESTION IN ENGINE INLETS WITH INLET VELOCITY RATIOS OF 1.0 AND 0.7. Rinaldo J. Brun. 1957. ii, 35p. diagrs., tab. (NACA Rept. 1317. Supersedes TN 3593)

(7.3.6)
PROPULSION SYSTEMS

NACA INVESTIGATIONS OF ICING-PROTECTION SYSTEMS FOR TURBOJET-ENGINE INSTALLATIONS. Uwe von Glahn, Edmund E. Callaghan, and Vernon H. Gray. May 2, 1951. (ii), 83p. diagrs., photos. (NACA RM E51B12)

CLOUD-DROPLET INGESTION IN ENGINE INLETS WITH INLET VELOCITY RATIOS OF 1.0 AND 0.7. Rinaldo J. Brun. 1957. ii, 35p. diagrs., tab. (NACA Rept. 1317. Supersedes TN 3593)

DROPLET IMPINGEMENT AND INGESTION BY SUPERSONIC NOSE INLET IN SUBSONIC TUNNEL CONDITIONS. Thomas F. Gelder. May 1958. 56p. diagrs., photos. (NACA TN 4268)

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EXPERIMENTAL DETERMINATION OF GAS MOTION ACCOMPANYING SCREECHING COMBUSTION IN A 6-INCH SIMULATED AFTERBURNER. Perry L. Blackshear, Warren D. Rayle, and Leonard K. Tower. December 1953. 63p. diagrs., photos., tab. (NACA RM E53I28)

SOME STUDIES OF AXISYMMETRIC FREE JETS EXHAUSTING FROM SONIC AND SUPERSONIC NOZZLES INTO STILL AIR AND INTO SUPERSONIC STREAMS. Eugene S. Love and Carl E. Grigsby. May 1955. ii, 178p. diagrs., photos., tabs (NACA RM L54L31)

FAR NOISE FIELD OF AIR JETS AND JET ENGINES. Edmund E. Callaghan and Willard D. Coles. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1329. Supersedes TN 3590; TN 3591)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. Walton L. Howes, Edmund E. Callaghan, Willard D. Coles, and Harold R. Mull. Appendix B: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. 1957. ii, 35p. diagrs., photos., tab. (NACA Rept. 1338. Supersedes TN 3763 and TN 3764)

REFLECTION AND REFRACTION OF ACOUSTIC WAVES BY A SHOCK WAVE. (Reflexion et refraction d'ondes acoustiques par une onde de choc.) J. Brillouin. July 1957. 42p. diagrs. (NACA TM 1409. Translation from Acustica, v. 5, no. 3, 1955, p. 149-163)

SCREEN-TYPE NOISE REDUCTION DEVICES FOR GROUND RUNNING OF TURBOJET ENGINES. Willard D. Coles and Warren J. North. July 1957. 23p. diagrs., photos. (NACA TN 4033)

STUDIES OF STRUCTURAL FAILURE DUE TO ACOUSTIC LOADING. Robert W. Hess, Robert W. Fralich, and Harvey H. Hubbard. July 1957. 11p. diagrs., tab. (NACA TN 4050)

NOISE SURVEY OF A FULL-SCALE SUPERSONIC TURBINE-DRIVEN PROPELLER UNDER STATIC CONDITIONS. Max C. Kurbjun. July 1957. 20p. diagrs., photo., tab. (NACA TN 4059)

EFFECTS OF BLADE PLAN FORM ON FREE-SPACE OSCILLATING PRESSURES NEAR PROPELLERS AT FLIGHT MACH NUMBERS TO 0.72. Max C. Kurbjun. August 1957. 20p. diagrs., photos., tabs. (NACA TN 4068)

CALCULATED AND MEASURED STRESSES IN SIMPLE PANELS SUBJECT TO INTENSE RANDOM ACOUSTIC LOADING INCLUDING THE NEAR NOISE FIELD OF A TURBOJET ENGINE. Leslie W. Lassiter and Robert W. Hess. September 1957. 33p. diagrs. (NACA TN 4076)

TURBULENCE MEASUREMENTS IN MULTIPLE INTERFERING AIR JETS. James C. Laurence and Jean M. Benninghoff. December 1957. 37p. diagrs., photos. (NACA TN 4029)

NOISE SURVEY UNDER STATIC CONDITIONS OF A TURBINE-DRIVEN FULL-SCALE MODIFIED SUPERSONIC PROPELLER WITH AN ADVANCE RATIO OF 3.2. Max C. Kurbjun. January 1958. 17p. diagrs., photo., tabs. (NACA TN 4172)

LIMITED INVESTIGATION OF NOISE SUPPRESSION BY INJECTION OF WATER INTO EXHAUST OF AFTERBURNING JET ENGINE. Max C. Kurbjun. February 1958. 15p. diagrs., photo. (NACA RM L57L05)

INVESTIGATION OF APERIODIC TIME PROCESSES WITH AUTOCORRELATION AND FOURIER ANALYSIS. (Untersuchung unperiodischer Zeitvorgänge mit der Autokorrelations und der Fourieranalyse.) Marie Luise Exner. March 1958. 44p. diagrs., photos., tabs. (NACA TM 1404. Translation from Acustica, v. 4, no. 3, 1954, p. 365-379)

WALL PRESSURE FLUCTUATIONS IN A TURBULENT BOUNDARY LAYER. William W. Willmarth, California Institute of Technology. March 1958. 39p. diagrs., photo. (NACA TN 4139)

EFFECT OF JET TEMPERATURE ON JET-NOISE GENERATION. Vern G. Rollin. March 1958. 13p. diagrs., photo. (NACA TN 4217)

GROUND REFLECTION OF JET NOISE. Walton L. Howes. April 1958. 56p. diagrs., photo. (NACA TN 4260)

ACOUSTIC, THRUST, AND DRAG CHARACTERISTICS OF SEVERAL FULL-SCALE NOISE SUPPRESSORS FOR TURBOJET ENGINES. Carl C. Ciepluch, Warren J. North, Willard D. Coles, and Robert J. Antl. April 1958. 48p. diagrs., photos. (NACA TN 4261)

TRANSONIC DRAG OF SEVERAL JET-NOISE SUPPRESSORS. Warren J. North. April 1958. 34p. diagrs., photos. (NACA TN 4269)

PRELIMINARY FLIGHT SURVEY OF FUSELAGE AND BOUNDARY-LAYER SOUND-PRESSURE LEVELS. Norman J. McLeod and Gareth H. Jordan. May 1958. 25p. diagrs., photos. (NACA RM H58B11)

AN ESTIMATE OF THE FLUCTUATING SURFACE PRESSURES ENCOUNTERED IN THE REENTRY OF A BALLISTIC MISSILE. Edmund E. Callaghan. July 1958. 18p. diagrs. (NACA TN 4315)

TURBOJET ENGINE NOISE REDUCTION WITH MIXING NOZZLE-EJECTOR COMBINATIONS. Willard D. Coles, John A. Mihaloew, and Edmund E. Callaghan. August 1958. 33p. diagrs., photos., tab. (NACA TN 4317)

AN INVESTIGATION OF SOME PHENOMENA RELATING TO AURAL DETECTION OF AIRPLANES. Harvey H. Hubbard and Domenic J. Maglieri. September 1958. 49p. diagrs., photos., tabs. (NACA TN 4337)

(7.6)
Lightning Hazards

LIGHTNING HAZARDS TO AIRCRAFT FUEL TANKS. J. D. Robb, E. L. Hill, M. M. Newman, and J. R. Stahmann, Lightning and Transients Research Institute. September 1958. 58p. diagrs., photos., tab. (NACA TN 4326)

(7.7)
Piloting Techniques

AN INVESTIGATION IN THE LANGLEY 20-FOOT FREE-SPINNING TUNNEL OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/30-SCALE MODEL OF THE BELL X-2 AIRPLANE. Lawrence J. Gale. July 20, 1949. 15p. diagrs., photo., tabs. (NACA RM L9G15a)

FREE-SPINNING TUNNEL INVESTIGATION OF A 1/20-SCALE MODEL OF THE DOUGLAS X-3 AIRPLANE. Burton E. Hultz. December 26, 1951. 23p. diagrs., photos., tab. (NACA RM L51K12)

ANALYTICAL STUDY OF THE EFFECT OF CENTER-OF-GRAVITY POSITION ON THE RESPONSE TO LONGITUDINAL CONTROL IN LANDING APPROACHES OF A SWEPT-WING AIRPLANE OF LOW ASPECT RATIO HAVING NO HORIZONTAL TAIL. Ralph W. Stone, Jr. October 1954. 35p. diagrs., tabs. (NACA RM L54H04)

COMPARISON OF EFFECTS OF AILERONS AND COMBINATIONS OF SPOILER-SLOT-DEFLECTOR ARRANGEMENTS ON SPIN RECOVERY OF SWEPT-BACK-WING MODEL HAVING MASS DISTRIBUTED ALONG THE FUSELAGE. Frederick M. Healy and Walter J. Klinar. November 1954. 18p. diagrs., photo., tabs. (NACA RM L54I14)

SPINNING AND RELATED PROBLEMS AT HIGH ANGLES OF ATTACK FOR HIGH-SPEED AIRPLANES. Walter J. Klinar. March 1956. 8p. diagrs. (NACA RM L55L23a)

CALCULATED EFFECT OF SOME AIRPLANE HANDLING TECHNIQUES ON THE GROUND-RUN DISTANCE IN LANDING ON SLIPPERY RUNWAYS. John A. Zalovcik. July 1957. 30p. diagrs., tabs. (NACA TN 4058)

STATUS OF SPIN RESEARCH FOR RECENT AIRPLANE DESIGNS. Anshal I. Neihouse, Walter J. Klinar, and Stanley H. Scher. August 1957. ii, 98p. diagrs., photos., tabs. (NACA RM L57F12)

REVIEW AND INVESTIGATION OF UNSATISFACTORY CONTROL CHARACTERISTICS INVOLVING INSTABILITY OF PILOT-AIRPLANE COMBINATION AND METHODS FOR PREDICTING THESE DIFFICULTIES FROM GROUND TESTS. William H. Phillips, B. Porter Brown, and James T. Matthews, Jr. August 1957. 57p. diagrs. (NACA TN 4064. Supersedes RM L53F17a)

SOME GROUND MEASUREMENTS OF THE FORCES APPLIED BY PILOTS TO A SIDE-LOCATED AIRCRAFT CONTROLLER. Roy F. Brissenden. November 1957. 17p. diagrs., photos., tab. (NACA TN 4171)

QUALITATIVE SIMULATOR STUDY OF LONGITUDINAL STICK FORCES AND DISPLACEMENTS DESIRABLE DURING TRACKING. Stanley Faber. February 1958. 23p. diagrs., photo. (NACA TN 4202)

FLIGHT INVESTIGATION OF THE ACCEPTABILITY OF A SMALL SIDE-LOCATED CONTROLLER USED WITH AN IRREVERSIBLE HYDRAULIC CONTROL SYSTEM. Helmut A. Kuehnel and Robert W. Sommer. July 1958. 19p. diagrs., photos., tabs. (NACA TN 4297)

(7.8)
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A PRELIMINARY FLIGHT INVESTIGATION OF THE EFFECT OF SNAKING OSCILLATIONS ON THE PILOTS' OPINIONS OF THE FLYING QUALITIES OF A FIGHTER AIRPLANE. Arnold R. Beckhardt, John A. Harper, and William L. Alford. September 26, 1950. 31p. diagrs., photos., tabs. (NACA RM L50E17a)

A LIMITED FLIGHT INVESTIGATION OF THE EFFECT OF DYNAMIC VIBRATION ABSORBERS ON THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. Jim Rogers Thompson and John E. Yeates, Jr. January 1955. 29p. diagrs., photos. (NACA RM L54K02)

REACTION OF FLUORINE WITH CARBON AS A MEANS OF FLUORINE DISPOSAL. Harold W. Schmidt. July 1957. 17p. diagrs., tab. (NACA RM E57E02)

SOME GROUND MEASUREMENTS OF THE FORCES APPLIED BY PILOTS TO A SIDE-LOCATED AIRCRAFT CONTROLLER. Roy F. Brissenden. November 1957. 17p. diagrs., photos., tab. (NACA TN 4171)

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. January 1958. 30p. diagrs., photo., tabs. (NACA TN 4199. Supersedes RM L53F08a)

(7.9)
Fire Hazards

SPONTANEOUS FLAMMABILITY OF PENTABORANE AND PENTABORANE - 3-METHYLPENTANE BLENDS. Edward A. Fletcher. February 1957. 11p. diagrs., photos. (NACA RM E53I17)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

RATE OF REACTION OF GASEOUS FLUORINE WITH WATER VAPOR AT 35° C. Vernon A. Siabey and Edward A. Fletcher. September 1958. 16p. diagrs., tabs. (NACA TN 4374)

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AN ANALYSIS OF THE EFFECT OF A CURVED RAMP ON THE TAKE-OFF PERFORMANCE OF CATAPULT-LAUNCHED AIRPLANES. Wilmer H. Reed, III. November 1952. 28p. diagrs., tab. (NACA RM L52I05)

EFFECTIVENESS OF A TURBOJET TUBULAR COMBUSTOR IN SCREENING THE TURBINE FROM FOREIGN OBJECTS. Patrick T. Chiarito. July 1955. 20p. diagrs., photos. (NACA RM E55E16)

FACTORS THAT AFFECT OPERATIONAL RELIABILITY OF TURBOJET ENGINES. Lewis Laboratory Staff. January 1956. 376p. diagrs., photos., tabs. (NACA RM E55H02)

FAR NOISE FIELD OF AIR JETS AND JET ENGINES. Edmund E. Callaghan and Willard D. Coles. 1957. ii, 18p. diagrs., photos. (NACA Rept. 1329. Supersedes TN 3590; TN 3591)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. 1957. ii, 16p. diagrs., photos., tab. (NACA Rept. 1332. Supersedes TN 3777)

CALCULATED EFFECT OF SOME AIRPLANE HANDLING TECHNIQUES ON THE GROUND-RUN DISTANCE IN LANDING ON SLIPPERY RUNWAYS. John A. Zalovcik. July 1957. 30p. diagrs., tabs. (NACA TN 4058)

EFFECT OF JET TEMPERATURE ON JET-NOISE GENERATION. Vern G. Rollin. March 1958. 13p. diagrs., photo. (NACA TN 4217)

EFFECT OF PRIOR AIR FORCE OVERTEMPERATURE OPERATION ON LIFE OF J47 BUCKETS EVALUATED IN A SEA-LEVEL CYCLIC ENGINE TEST. Robert A. Signorelli, James R. Johnston, and Floyd B. Garrett. April 1958. 41p. diagrs., photos., tabs. (NACA TN 4263)

COMPATIBILITY OF METALS WITH LIQUID FLUORINE AT HIGH PRESSURES AND FLOW VELOCITIES. Harold W. Schmidt. July 1958. 15p. diagrs., photo., tab. (NACA RM E58D11)

AN INVESTIGATION OF SOME PHENOMENA RELATING TO AURAL DETECTION OF AIRPLANES. Harvey H. Hubbard and Domenic J. Maglieri. September 1958. 49p. diagrs., photos., tabs. (NACA TN 4337)

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INSTRUMENTS

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EFFECTS OF THERMAL RELAXATION AND SPECIFIC-HEAT CHANGES ON MEASUREMENTS WITH A PNEUMATIC-PROBE PYROMETER. P. W. Kuhns. July 1957. (ii), 67p. diagrs., tabs. (NACA TN 4026)

A COOLED-GAS PYROMETER FOR USE IN HIGH-TEMPERATURE GAS STREAMS. Lloyd N. Krause, Robert C. Johnson, and George E. Glawe. September 1958. 32p. diagrs. (NACA TN 4383)

(8.1)
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MACH NUMBER MEASUREMENTS AND CALIBRATIONS DURING FLIGHT AT HIGH SPEEDS AND AT HIGH ALTITUDES INCLUDING DATA FOR THE D-558-II RESEARCH AIRPLANE. Cyril D. Brunn and Wendell H. Stillwell. March 1956. 31p. diagrs., tabs. (NACA RM H55J18)

LIGHT DIFFUSION THROUGH HIGH-SPEED TURBULENT BOUNDARY LAYERS. Howard A. Stine and Warren Winovich. May 1956. 46p. diagrs., photos., tabs. (NACA RM A56B21)

WIND-TUNNEL INVESTIGATION OF A NUMBER OF TOTAL-PRESSURE TUBES AT HIGH ANGLES OF ATTACK. SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William Gracey. 1957. ii, 10p. diagrs., tab. (NACA Rept. 1303. Supersedes TN 3641)

MEASUREMENT OF STATIC PRESSURE ON AIRCRAFT. William Gracey. April 1957. ii, 70p. diagrs. (NACA RM L57A09)

EFFECTS OF BLADE PLAN FORM ON FREE-SPACE OSCILLATING PRESSURES NEAR PROPELLERS AT FLIGHT MACH NUMBERS TO 0.72. Max C. Kurbjun. August 1957. 20p. diagrs., photos., tabs. (NACA TN 4068)

IMPINGEMENT OF CLOUD DROPLETS ON 36.5-PERCENT-THICK JOUKOWSKI AIRFOIL AT ZERO ANGLE OF ATTACK AND DISCUSSION OF USE AS CLOUD MEASURING INSTRUMENT IN DYE-TRACER TECHNIQUE. R. J. Brun and Dorothea E. Vogt. September 1957. 52p. diagrs., tabs. (NACA TN 4035)

A THERMAL SYSTEM FOR CONTINUOUS MONITORING OF LAMINAR AND TURBULENT BOUNDARY-LAYER FLOWS DURING ROUTINE FLIGHT. Norman R. Richardson and Elmer A. Horton. September 1957. 25p. diagrs., photos. (NACA TN 4108)

EXTERNAL INTERFERENCE EFFECTS OF FLOW THROUGH STATIC-PRESSURE ORIFICES OF AN NACA AIRSPEED HEAD AT A MACH NUMBER OF 3. Norman S. Silsby. October 1957. 12p. diagrs. (NACA TN 4122)

THE MEASUREMENT OF PRESSURE ALTITUDE ON AIRCRAFT. William Gracey. October 1957. 25p. diagrs., tabs. (NACA TN 4127)

MEASUREMENT OF STATIC PRESSURE ON AIRCRAFT. William Gracey. November 1957. ii, 71p. diagrs. (NACA TN 4184)

A THERMOCOUPLE SUBCARRIER OSCILLATOR FOR TELEMETERING TEMPERATURES FROM PILOTLESS AIRCRAFT. Clifford L. Fricke. December 1957. 50p. diagrs., photos., tabs. (NACA TN 4128)

SUMMARY OF METHODS OF MEASURING ANGLE OF ATTACK ON AIRCRAFT. William Gracey. August 1958. 29p. diagrs. (NACA TN 4351)

LAG IN PRESSURE SYSTEMS AT EXTREMELY LOW PRESSURES. William T. Davis. September 1958. 16p. diagrs. (NACA TN 4334)

(8.2)
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EXPERIMENTAL DETERMINATION OF GAS MOTION ACCOMPANYING SCREECHING COMBUSTION IN A 6-INCH SIMULATED AFTERBURNER. Perry L. Blackshear, Warren D. Rayle, and Leonard K. Tower. December 1953. 63p. diagrs., photos., tab. (NACA RM E53I28)

LIGHT DIFFUSION THROUGH HIGH-SPEED TURBULENT BOUNDARY LAYERS. Howard A. Stine and Warren Winovich. May 1956. 46p. diagrs., photos., tabs. (NACA RM A56B21)

AN EVALUATION OF FOUR EXPERIMENTAL METHODS FOR MEASURING MEAN PROPERTIES OF A SUPERSONIC TURBULENT BOUNDARY LAYER. George J. Nothwang. 1957. ii, 11p. diagrs., photos. (NACA Rept. 1320. Supersedes TN 3721)

INVESTIGATION OF APERIODIC TIME PROCESSES WITH AUTOCORRELATION AND FOURIER ANALYSIS. (Untersuchung unperiodischer Zeitvorgänge mit der Autokorrelations und der Fourieranalyse.) Marie Luise Exner. March 1958. 44p. diagrs., photos., tabs. (NACA TM 1404. Translation from Acustica, v. 4, no. 3, 1954, p. 365-379)

APPLICATION OF A HIGH-TEMPERATURE STATIC STRAIN GAGE TO THE MEASUREMENT OF THERMAL STRESSES IN A TURBINE STATOR VANE. R. H. Kemp, C. R. Morse, and M. H. Hirschberg. March 1958. 36p. diagrs., photos., tab. (NACA TN 4215)

LAG IN PRESSURE SYSTEMS AT EXTREMELY LOW PRESSURES. William T. Davis. September 1958. 16p. diagrs. (NACA TN 4334)

SLIP-FLOW HEAT TRANSFER FROM CYLINDERS IN SUBSONIC AIRSTREAMS. Lionel V. Baldwin. September 1958. (i), 77p. diagrs., photos., tabs. (NACA TN 4369)

(8.3)
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IMPINGEMENT OF CLOUD DROPLETS ON 36.5-PERCENT-THICK JOUKOWSKI AIRFOIL AT ZERO ANGLE OF ATTACK AND DISCUSSION OF USE AS CLOUD MEASURING INSTRUMENT IN DYE-TRACER TECHNIQUE. R. J. Brun and Dorothea E. Vogt. September 1957. 52p. diagrs., tabs. (NACA TN 4035)

ATMOSPHERIC TEMPERATURE OBSERVATIONS TO 100,000 FEET FOR SEVERAL CLIMATOLOGICAL REGIONS OF THE NORTHERN HEMISPHERE. H. B. Tolefson. November 1957. 26p. diagr., tab. (NACA TN 4169)

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RESEARCH EQUIPMENT AND TECHNIQUES

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AIR-FLOW AND POWER CHARACTERISTICS OF THE LANGLEY 16-FOOT TRANSONIC TUNNEL WITH SLOTTED TEST SECTION. Vernon G. Ward, Charles F. Whitcomb, and Merwin D. Pearson. July 1952. 50p. diagrs., photos. (NACA RM L52E01)

EFFECT OF DRAWBAR UPSTREAM LOCATION ON AIR VELOCITY DISTRIBUTION AT THE INLET FACE OF REACTOR SEGMENT DESIGNED BY THE GENERAL ELECTRIC COMPANY. T. F. Nagey and E. W. Sams. January 1953. 11p. diagrs. (NACA RM E52L22)

MAXIMUM ALTITUDE AND MAXIMUM MACH NUMBER OBTAINED WITH THE MODIFIED DOUGLAS D-558-II RESEARCH AIRPLANE DURING DEMONSTRATION FLIGHTS. Theodore E. Dahlen. April 1953. 14p. diagrs., tabs. (NACA RM L53B24)

MACH NUMBFR MEASUREMENTS AND CALIBRATIONS DURING FLIGHT AT HIGH SPEEDS AND AT HIGH ALTITUDES INCLUDING DATA FOR THE D-558-II RESEARCH AIRPLANE. Cyril D. Brunn and Wendell H. Stillwell. March 1956. 31p. diagrs., tabs. (NACA RM H55J18)

WIND-TUNNEL INVESTIGATION OF THE DAMPING IN ROLL OF THE DOUGLAS D-558-II RESEARCH AIRPLANE AND ITS COMPONENTS AT SUPERSONIC SPEEDS. Russell W. McDearmon. September 1956. 36p. diagrs., photos. (NACA RM L56F07)

MEASUREMENT OF AERODYNAMIC FORCES FOR VARIOUS MEAN ANGLES OF ATTACK ON AN AIRFOIL OSCILLATING IN PITCH AND ON TWO FINITE-SPAN WINGS OSCILLLATING IN BENDING WITH EMPHASIS ON DAMPING IN THE STALL. A. Gerald Rainey. 1957. iii, 33p. diagrs., photos., (NACA Rept. 1305. Supersedes TN 3643)

EXPERIMENTAL INVESTIGATION OF ATTENUATION OF STRONG SHOCK WAVES IN A SHOCK TUBE WITH HYDROGEN AND HELIUM AS DRIVER GASES. Jim J. Jones. July 1957. 24p. diagrs., photo. (NACA TN 4072)

A THERMOCOUPLE SUBCARRIER OSCILLATOR FOR TELEMETERING TEMPERATURES FROM PILOTLESS AIRCRAFT. Clifford L. Fricke. December 1957. 50p. diagrs., photos., tabs. (NACA TN 4128)

RESULTS OF AN EXPERIMENTAL INVESTIGATION OF SMALL VISCOUS DAMPERS. Milton A. Silveira, Domenic J. Maglieri, and George W. Brooks. June 1958. 49p. diagrs., photos. (NACA TN 4257)

(9.1) Equipment

AIR-FLOW AND POWER CHARACTERISTICS OF THE LANGLEY 16-FOOT TRANSONIC TUNNEL WITH SLOTTED TEST SECTION. Vernon G. Ward, Charles F. Whitcomb, and Merwin D. Pearson. July 1952. 50p. diagrs., photos. (NACA RM L52E01)

EFFECT OF BOUNDARY SOLIDITY ON PLANING LIFT OBTAINED IN A HIGH-SPEED WATER JET WITH A SINGLE LONGITUDINAL SLOT IN EACH RIGID BOUNDARY. Bernard Weinflash. October 1957. 27p. diagrs., photos. (NACA RM L57I06)

INVESTIGATION OF APERIODIC TIME PROCESSES WITH AUTOCORRELATION AND FOURIER ANALYSIS. (Untersuchung unperiodischer Zeitvorgänge mit der Autokorrelations und der Fourieranalyse.) Marie Luise Exner. March 1958. 44p. diagrs., photos., tabs. (NACA TM 1404. Translation from Acustica, v. 4, no. 3, 1954, p. 365-379)

CENTRAL AUTOMATIC DATA PROCESSING SYSTEM. By the Staff of the Lewis Laboratory. Chapter I: GENERAL DESCRIPTION. Bert A. Coss. Chapter II: CENTRAL RECORDING SYSTEM. Robert L. Miller. Chapter III: AUTOMATIC VOLTAGE DIGITIZERS. Leonard Jaffe and Richard L. Smith. Chapter IV: FREQUENCY DATA. John Ryskamp. Chapter V: DIGITAL AUTOMATIC MULTIPLE PRESSURE RECORDER. Leonard Jaffe, Arthur J. Gedeon, and Richard N. Bell. Chapter VI: PLAYBACK AND CONTROL ROOM EQUIPMENT. John Ryskamp. April 1958. (iii), 96p. diagrs., photos. (NACA TN 4212)

MEASUREMENTS IN A SHOCK TUBE OF HEAT-TRANSFER RATES AT THE STAGNATION POINT OF A 1.0-INCH-DIAMETER SPHERE FOR REAL-GAS TEMPERATURES UP TO 7,900° R. Alexander P. Sabol. August 1958. 15p. diagrs., photos., tab. (NACA TN 4354)

(9.1.1) WIND TUNNELS

CHARACTERISTICS OF A TRANSONIC TEST SECTION WITH VARIOUS SLOT SHAPES IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ray H. Wright and Virgil S. Ritchie. October 1951. 35p. diagrs., photo. (NACA RM L51H10)

AN INVESTIGATION AT MACH NUMBERS 2.98 AND 2.18 OF AXIALLY SYMMETRIC FREE-JET DIFFUSION WITH A RAM-JET ENGINE. Henry R. Hunczak. February 1952. 30p. photos., diagrs. (NACA RM E51L24)

CALIBRATION OF THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT TRANSONIC TUNNEL AND PRELIMINARY EXPERIMENTAL INVESTIGATION OF BOUNDARY-REFLECTED DISTURBANCES. Virgil S. Ritchie and Albin O. Pearson. July 1952. 87p. diagrs., photos. (NACA RM L51K14)

AIR-FLOW AND POWER CHARACTERISTICS OF THE LANGLEY 16-FOOT TRANSONIC TUNNEL WITH SLOTTED TEST SECTION. Vernon G. Ward, Charles F. Whitcomb, and Merwin D. Pearson. July 1952. 50p. diagrs., photos. (NACA RM L52E01)

AN INVESTIGATION OF THE STREAM-TUBE POWER LOSSES AND AN IMPROVEMENT OF THE DIFFUSER-ENTRANCE NOSE IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Richard T. Whitcomb, Melvin M. Carmel, and Francis G. Morgan, Jr. August 1952. 70p. diagrs., photos., tabs. (NACA RM L52E20)

AN INVESTIGATION OF SOME FACTORS AFFECTING THE DRAG OF RELATIVELY LARGE NON-LIFTING BODIES OF REVOLUTION IN A SLOTTED TRANSONIC WIND TUNNEL. Robert E. Pendley and Carroll R. Bryan. January 1953. 52p. diagrs., photos., tabs. (NACA RM L52H22)

EFFECTS OF SLOT LOCATION AND GEOMETRY ON THE FLOW IN A SQUARE TUNNEL AT TRANSONIC MACH NUMBERS. William J. Nelson and James M. Cubbage, Jr. November 1953. 46p. diagrs., photos., tab. (NACA RM L53J09)

AN EXPERIMENTAL INVESTIGATION OF THE TRANSONIC-FLOW-GENERATION AND SHOCK-WAVE-REFLECTION CHARACTERISTICS OF A TWO-DIMENSIONAL WIND TUNNEL WITH 24-PERCENT-OPEN, DEEP, MULTISLOTTED WALLS. Thomas B. Sellers, Don D. Davis, and George M. Stokes. December 1953. 37p. diagrs., photos. (NACA RM L53J28)

EFFECTS OF AUXILIARY AND EJECTOR PUMPING ON THE MACH NUMBER ATTAINABLE IN A $4\frac{1}{2}$- BY $4\frac{1}{2}$-INCH SLOTTED TUNNEL AT LOW PRESSURE RATIOS. John S. Dennard and Barney H. Little, Jr. January 1954. 29p. diagrs., photos. (NACA RM L53K19)

PRELIMINARY INVESTIGATION OF A TECHNIQUE OF PRODUCING A HEATED CORE IN A SUPERSONIC WIND-TUNNEL STREAM. Morris D. Rousso and Milton A. Beheim. February 1955. 22p. photos., diagrs. (NACA RM E54K02)

AERODYNAMIC LOADS ON AN EXTERNAL STORE ADJACENT TO A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.70 TO 1.96, INCLUDING AN EVALUATION OF TECHNIQUES USED. Lawrence D. Guy and William M. Hadaway. November 1955. 109p. diagrs., photo., tab. (NACA RM L55H12)

A DESCRIPTION OF THE AMES 2- BY 2-FOOT TRANSONIC WIND TUNNEL AND PRELIMINARY EVALUATION OF WALL INTERFERENCE. Joseph M. Spiegel and Leslie F. Lawrence. January 1956. 65p. diagrs., photo. (NACA RM A55I21)

A METHOD FOR THE DESIGN OF POROUS-WALL WIND TUNNELS. George M. Stokes. January 1956. 50p. diagrs., photo., tabs. (NACA RM L55J13a)

EVALUATION OF AN AUTOMATIC INLET-PRESSURE CONTROL VALVE FOR STUDY OF TRANSIENT ENGINE PERFORMANCE CHARACTERISTICS. Lewis E. Wallner, Robert J. Lubick, and Harry E. Bloomer. April 1956. 25p. diagrs., photo. (NACA RM E55L13)

EXPERIMENTAL INVESTIGATION OF INTERFERENCE EFFECTS OF LATERAL-SUPPORT STRUTS ON AFTERBODY PRESSURES AT MACH 1.9. John L. Klann and Ronald G. Huff. May 1956. 13p. diagrs., tab. (NACA RM E56C16)

JET EFFECTS ON BASE AND AFTERBODY PRESSURES OF A CYLINDRICAL AFTERBODY AT TRANSONIC SPEEDS. James M. Cubbage, Jr. May 1956. 50p. diagrs., photos. (NACA RM L56C21)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SEVERAL DIFFUSERS AND DIFFUSER-ENTRANCE--MIXING SECTION COMBINATIONS ON THE POWER REQUIREMENTS OF A $4\frac{1}{2}$-INCH BY $4\frac{1}{2}$-INCH SLOTTED TRANSONIC WIND TUNNEL. John S. Dennard. June 1956. 65p. diagrs., tabs. (NACA RM L56C07)

SOME EFFECTS OF HEAT TRANSFER AT MACH NUMBER 2.0 AT STAGNATION TEMPERATURES BETWEEN 2,310° AND 3,500° R ON A MAGNESIUM FIN WITH SEVERAL LEADING-EDGE MODIFICATIONS. William M. Bland, Jr., and Walter E. Bressette. April 1957. 29p. diagrs., photos., tab. (NACA RM L57C14)

A PRELIMINARY INVESTIGATION OF METHODS FOR IMPROVING THE PRESSURE-RECOVERY CHARACTERISTICS OF VARIABLE-GEOMETRY SUPERSONIC-SUBSONIC DIFFUSER SYSTEMS. Lowell E. Hasel and Archibald R. Sinclair. October 1957. 57p. diagrs., photos. (NACA RM L57H02)

FLOW-TURNING LOSSES ASSOCIATED WITH ZERO-DRAG EXTERNAL-COMPRESSION SUPERSONIC INLETS. Rudolph C. Meyer. October 1957. 18p. diagrs. (NACA TN 4096)

STUDY OF PRESSURE DISTRIBUTIONS ON SIMPLE SHARP-NOSED MODELS AT MACH NUMBERS FROM 16 TO 18 IN HELIUM FLOW. Wayne D. Erickson. October 1957. 42p. diagrs., photos. (NACA TN 4113)

EFFECTS OF STING-SUPPORT INTERFERENCE ON THE DRAG OF AN OGIVE-CYLINDER BODY WITH AND WITHOUT A BOATTAIL AT 0.6 TO 1.4 MACH NUMBER. George Lee and James L. Summers. December 1957. 28p. diagrs., photos. (NACA RM A57I09)

PHYSICAL CHARACTERISTICS AND TEST CONDITIONS OF AN ETHYLENE-HEATED HIGH-TEMPERATURE JET. Roland D. English, Abraham Spinak, and Eldred H. Helton. January 1958. 28p. diagrs., photos. (NACA TN 4182)

MEASUREMENTS OF THE EFFECTS OF WALL OUTFLOW AND POROSITY ON WAVE ATTENUATION IN A TRANSONIC WIND TUNNEL WITH PERFORATED WALLS. Joseph M. Spiegel, Phillips J. Tunnell, and Warren S. Wilson. August 1958. 27p. diagrs. (NACA TN 4360)

EFFECTS OF NOSE ANGLE AND MACH NUMBER ON TRANSITION ON CONES AT SUPERSONIC SPEEDS. K. R. Czarnecki and Mary W. Jackson September 1958. 17p. diagrs., photo. (NACA TN 4388)

(9.1.2) FREE-FLIGHT

ROCKET-POWERED MODEL INVESTIGATION OF LIFT, DRAG, AND STABILITY OF A BODY-TAIL CONFIGURATION AT MACH NUMBERS FROM 0.8 TO 2.3 AND ANGLES OF ATTACK BETWEEN ±6.5°. Warren Gillespie, Jr., and Albert E. Dietz. April 1954. 42p. diagrs., photos., tabs. (NACA RM L54C04)

DRAG DATA FOR 16-INCH-DIAMETER RAM-JET ENGINE WITH DOUBLE-CONE INLET IN FREE FLIGHT AT MACH NUMBERS FROM 0.7 TO 1.8. Merle L. Jones, Leonard Rabb, and Scott H. Simpkinson. October 1954. 52p. diagrs., photos. (NACA RM E54H02)

WIND-TUNNEL INVESTIGATION OF A NUMBER OF TOTAL-PRESSURE TUBES AT HIGH ANGLES OF ATTACK. SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William Gracey. 1957. ii, 10p. diagrs., tab. (NACA Rept. 1303. Supersedes TN 3641)

DETERMINATION OF LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS FROM FREE-FLIGHT MODEL TESTS WITH RESULTS AT TRANSONIC SPEEDS FOR THREE AIRPLANE CONFIGURATIONS. Clarence L. Gillis and Jesse L. Mitchell. 1957. ii, 28p. diagrs., photos., tabs. (NACA Rept. 1337)

MEASUREMENT OF STATIC PRESSURE ON AIRCRAFT. William Gracey. April 1957. ii, 70p. diagrs. (NACA RM L57A09)

FLIGHT MEASUREMENTS OF BOUNDARY-LAYER TEMPERATURE PROFILES ON A BODY OF REVOLUTION (NACA RM-10) AT MACH NUMBERS FROM 1.2 TO 3.5. Andrew G. Swanson, James J. Buglia, and Leo T. Chauvin. July 1957. 40p. diagrs., photos. (NACA TN 4061)

FLIGHT-TEST INVESTIGATION ON THE LANGLEY CONTROL-LINE FACILITY OF A MODEL OF A PROPELLER-DRIVEN TAIL-SITTER-TYPE VERTICAL-TAKE-OFF AIRPLANE WITH DELTA WING DURING RAPID TRANSITIONS. Robert O. Schade. August 1957. 19p. diagrs., photo., tab. (NACA TN 4070)

THE MEASUREMENT OF PRESSURE ALTITUDE ON AIRCRAFT. William Gracey. October 1957. 25p. diagrs., tabs. (NACA TN 4127)

DEVELOPMENT OF A PISTON-COMPRESSOR TYPE LIGHT-GAS GUN FOR THE LAUNCHING OF FREE-FLIGHT MODELS AT HIGH VELOCITY. A. C. Charters, B. Pat Denardo, and Vernon J. Rossow. November 1957. (i), 95p. diagrs., photos., tabs. (NACA TN 4143. Supersedes RM A55G11)

MEASUREMENT OF STATIC PRESSURE ON AIRCRAFT. William Gracey. November 1957. ii, 71p. diagrs. (NACA TN 4184)

SUMMARY OF METHODS OF MEASURING ANGLE OF ATTACK ON AIRCRAFT. William Gracey. August 1958. 29p. diagrs. (NACA TN 4351)

LAG IN PRESSURE SYSTEMS AT EXTREMELY LOW PRESSURES. William T. Davis. September 1958. 16p. diagrs. (NACA TN 4334)

AN INVESTIGATION OF SUPERSONIC TURBULENT BOUNDARY LAYERS ON SLENDER BODIES OF REVOLUTION IN FREE FLIGHT BY USE OF A MACH-ZEHNDER INTERFEROMETER AND SHADOWGRAPHS. Alvin Seiff and Barbara J. Short. September 1958. 57p. diagrs., photos. (NACA TN 4364)

(9.1.4)
PROPULSION RESEARCH EQUIPMENT

AN INVESTIGATION AT MACH NUMBERS 2.98 AND 2.18 OF AXIALLY SYMMETRIC FREE-JET DIFFUSION WITH A RAM-JET ENGINE. Henry R. Hunczak. February 1952. 30p. photos., diagrs. (NACA RM E51L24)

DESIGN AND EVALUATION OF A TURBOJET EXHAUST SIMULATOR, UTILIZING A SOLID-PROPELLANT ROCKET MOTOR, FOR USE IN FREE-FLIGHT AERODYNAMIC RESEARCH MODELS. Carlos A. deMoraes, William K. Hagginbothom, Jr., and Ralph A. Falanga. December 1954. 25p. diagrs., photos. (NACA RM L54I15)

MODIFIED TUBULAR COMBUSTORS AS HIGH-TEMPERATURE GAS GENERATORS. Robert J. Friedman and Eugene V. Zettle. October 1955. 17p. diagrs., photos., tabs. (NACA RM E55H25)

EVALUATION OF AN AUTOMATIC INLET-PRESSURE CONTROL VALVE FOR STUDY OF TRANSIENT ENGINE PERFORMANCE CHARACTERISTICS. Lewis E. Wallner, Robert J. Lubick, and Harry E. Bloomer. April 1956. 25p. diagrs., photo. (NACA RM E55L13)

NOISE SURVEY OF A FULL-SCALE SUPERSONIC TURBINE-DRIVEN PROPELLER UNDER STATIC CONDITIONS. Max C. Kurbjun. July 1957. 20p. diagrs., photo., tab. (NACA TN 4059)

NOISE SURVEY UNDER STATIC CONDITIONS OF A TURBINE-DRIVEN FULL-SCALE MODIFIED SUPERSONIC PROPELLER WITH AN ADVANCE RATIO OF 3.2. Max C. Kurbjun. January 1958. 17p. diagrs., photo., tabs. (NACA TN 4172)

(9.1.5)
PROPELLER

WAKE SURVEYS IN THE SLIPSTREAM OF A FULL-SCALE SUPERSONIC-TYPE THREE-BLADE PROPELLER AT MACH NUMBERS TO 0.96. John M. Swihart and Harry T. Norton, Jr. October 1953. 33p. diagrs., photo. (NACA RM L53I09)

INVESTIGATION OF THE NORMAL FORCE ACCOMPANYING THRUST-AXIS INCLINATION OF THE NACA 1.167-(0)(03)-058 AND THE NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.90. Fred A. Demele and William R. Otey. June 1954. 31p. diagrs., photo., tab. (NACA RM A54D22)

AN INVESTIGATION OF SINGLE- AND DUAL-ROTATION PROPELLERS AT POSITIVE AND NEGATIVE THRUST, AND IN COMBINATION WITH AN NACA 1-SERIES D-TYPE COWLING AT MACH NUMBERS UP TO 0.84. Robert M. Reynolds, Robert I. Sammonds, and John H. Walker. 1957. ii, 58p. diagrs., photos., tabs. (NACA Rept. 1336)

(9.1.6)
MATERIALS

ENGINE PERFORMANCE OF ALLOY 73J TURBINE BLADES CAST TO PREDETERMINED GRAIN SIZES. James R. Johnston, Charles A. Gyorgak, and John W. Weeton. July 1954. 27p. diagrs., photos., tab. (NACA RM E54E05)

THEORY AND APPARATUS FOR MEASUREMENT OF EMISSIVITY FOR RADIATIVE COOLING OF HYPERSONIC AIRCRAFT WITH DATA FOR INCONEL AND INCONEL X. William J. O'Sullivan, Jr., and William R. Wade. October 1957. ii, 48p. diagrs., photos. (NACA TN 4121)

(9.1.7)
STRUCTURES

THEORY OF AIRCRAFT STRUCTURAL MODELS SUBJECT TO AERODYNAMIC HEATING AND EXTERNAL LOADS. William J. O'Sullivan, Jr. September 1957. 48p. (NACA TN 4115)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. VARIABLE-AMPLITUDE TESTS WITH A GUST-LOADS SPECTRUM. Richard E. Whaley. November 1957. 43p. diagrs., photos., tabs. (NACA TN 4132)

(9.2)
Technique

A THEORETICAL STUDY OF THE EFFECT OF CONTROL-DEFLECTION AND CONTROL-RATE LIMITATIONS ON THE NORMAL ACCELERATION AND ROLL RESPONSE OF A SUPERSONIC INTERCEPTOR. Howard F. Matthews and Stanley F. Schmidt. April 1953. 28p. photos., diagrs., tabs. (NACA RM A53B11)

AN EXPERIMENTAL INVESTIGATION AT SUBSONIC AND SUPERSONIC SPEEDS OF THE TORSIONAL DAMPING CHARACTERISTICS OF A CONSTANT-CHORD CONTROL SURFACE OF AN ASPECT RATIO 2 TRIANGULAR WING. David E. Reese, Jr. July 1953. 32p. diagrs., photos., tab. (NACA RM A53D27)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE HINGE-MOMENT AND NORMAL-FORCE PROPERTIES OF A FULL-SPAN, CONSTANT-CHORD, PARTIALLY BALANCED TRAILING-EDGE CONTROL ON A 60° CLIPPED DELTA WING BETWEEN MACH NUMBERS OF 0.50 AND 1.26. C. William Martz and John W. Goslee. October 1953. 33p. diagrs., photos., tab. (NACA RM L53I04)

A LIMITED FLIGHT INVESTIGATION OF THE EFFECT OF DYNAMIC VIBRATION ABSORBERS ON THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. Jim Rogers Thompson and John E. Yeates, Jr. January 1955. 29p. diagrs., photos. (NACA RM L54K02)

HIGH-TEMPERATURE OXIDATION AND IGNITION OF METALS. Paul R. Hill, David Adamson, Douglas H. Foland, and Walter E. Bressette. March 1956. 12p. diagrs. (NACA RM L55L23b)

LIGHT DIFFUSION THROUGH HIGH-SPEED TURBULENT BOUNDARY LAYERS. Howard A. Stine and Warren Winovich. May 1956. 46p. diagrs., photos., tabs. (NACA RM A56B21)

ANALYSIS OF THE VERTICAL-TAIL LOADS MEASURED DURING A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF THE DOUGLAS X-3 RESEARCH AIRPLANE. William L. Marcy, Harriet J. Stephenson, and Thomas V. Cooney. November 1956. 32p. diagrs., photo., tab. (NACA RM H56H08)

LIFT-CURVE SLOPES DETERMINED IN FLIGHT ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. December 1956. 49p. diagrs., photos., tabs. (NACA RM L56E21a)

FLIGHT AND ANALYTICAL METHODS FOR DETERMINING THE COUPLED VIBRATION RESPONSE OF TANDEM HELICOPTERS. John E. Yeates, Jr., George W. Brooks, and John C. Houbolt. 1957. iv, 31p. diagrs., photo., tabs. (NACA Rept. 1326. Supersedes TN 3852; TN 3849)

APPLICATION OF OBLIQUELY MOUNTED STRAIN GAGE TO MEASUREMENT OF RESIDUAL STRESSES IN DISKS. M. H. Hirschberg, R. H. Kemp, and S. S. Manson. September 1957. 18p. diagrs., photo. (NACA TN 4027)

ANALYSIS OF HORIZONTAL-TAIL LOADS IN PITCHING MANEUVERS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr. December 1957. 58p. diagrs., photo., tabs. (NACA TN 4191)

INVESTIGATION OF APERIODIC TIME PROCESSES WITH AUTOCORRELATION AND FOURIER ANALYSIS. (Untersuchung unperiodischer Zeitvorgänge mit der Autokorrelations und der Fourieranalyse.) Marie Luise Exner. March 1958. 44p. diagrs., photos., tabs. (NACA TM 1404. Translation from Acustica, v. 4, no. 3, 1954, p. 365-379)

AN EVALUATION OF EFFECTS OF FLEXIBILITY ON WING STRAINS IN ROUGH AIR FOR A LARGE SWEPT-WING AIRPLANE BY MEANS OF EXPERIMENTALLY DETERMINED FREQUENCY-RESPONSE FUNCTIONS WITH AN ASSESSMENT OF RANDOM-PROCESS TECHNIQUES EMPLOYED. Thomas L. Coleman, Harry Press, and May T. Meadows. July 1958. ii, 74p. diagrs., photo., tabs. (NACA TN 4291)

TRANSIENT TEMPERATURE DISTRIBUTION IN A TWO-COMPONENT SEMI-INFINITE COMPOSITE SLAB OF ARBITRARY MATERIALS SUBJECTED TO AERODYNAMIC HEATING WITH A DISCONTINUOUS CHANGE IN EQUILIBRIUM TEMPERATURE OR HEAT-TRANSFER COEFFICIENT. Robert L. Trimpi and Robert A. Jones. September 1958. 83p. diagrs., tabs. (NACA TN 4308)

A NONLINEAR THEORY FOR PREDICTING THE EFFECTS OF UNSTEADY LAMINAR, TURBULENT, OR TRANSITIONAL BOUNDARY LAYERS ON THE ATTENUATION OF SHOCK WAVES IN A SHOCK TUBE WITH EXPERIMENTAL COMPARISON. Robert L. Trimpi and Nathaniel B. Cohen. September 1958. 105p. diagrs., photos., tab. (NACA TN 4347)

(9.2.1)
CORRECTIONS

CALIBRATION OF THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT TRANSONIC TUNNEL AND PRELIMINARY EXPERIMENTAL INVESTIGATION OF BOUNDARY-REFLECTED DISTURBANCES. Virgil S. Ritchie and Albin O. Pearson. July 1952. 87p. diagrs., photos. (NACA RM L51K14)

AN INVESTIGATION OF SOME FACTORS AFFECTING THE DRAG OF RELATIVELY LARGE NON-LIFTING BODIES OF REVOLUTION IN A SLOTTED TRANSONIC WIND TUNNEL. Robert E. Pendley and Carroll R. Bryan. January 1953. 52p. diagrs., photos., tabs. (NACA RM L52H22)

THE HYDRODYNAMIC PLANING LIFT OF FOUR SURFACES AS MEASURED IN A 200-FPS FREE JET. John R. McGehee, Bernard Weinflash, and Charles A. Pelz. July 1954. 24p. diagrs., photos. (NACA RM L54F01)

A DESCRIPTION OF THE AMES 2- BY 2-FOOT TRANSONIC WIND TUNNEL AND PRELIMINARY EVALUATION OF WALL INTERFERENCE. Joseph M. Spiegel and Leslie F. Lawrence. January 1956. 65p. diagrs., photo. (NACA RM A55I21)

WIND-TUNNEL INVESTIGATION OF A NUMBER OF TOTAL-PRESSURE TUBES AT HIGH ANGLES OF ATTACK. SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS. William Gracey. 1957. ii, 10p. diagrs., tab. (NACA Rept. 1303. Supersedes TN 3641)

HORIZONTAL-TAIL PARAMETERS AS DETERMINED FROM FLIGHT-TEST TAIL LOADS ON A FLEXIBLE SWEPT-WING JET BOMBER. William S. Aiken, Jr., and Raymond A. Fisher. January 1957. 42p. diagrs., photos., tabs. (NACA RM L56J02)

INVESTIGATION OF THE INFLUENCE OF THE BOUNDARIES OF A HIGH-SPEED FREE WATER JET ON THE PLANING LIFT OF A FLAT PLATE. John R. McGehee. March 1957. 21p. diagrs., photos. (NACA RM L56K02)

MEASUREMENT OF STATIC PRESSURE ON AIRCRAFT. William Gracey. April 1957. ii, 70p. diagrs. (NACA RM L57A09)

EFFECTS OF THERMAL RELAXATION AND SPECIFIC-HEAT CHANGES ON MEASUREMENTS WITH A PNEUMATIC-PROBE PYROMETER. P. W. Kuhns. July 1957. (ii), 67p. diagrs., tabs. (NACA TN 4026)

EFFECT OF BOUNDARY SOLIDITY ON PLANING LIFT OBTAINED IN A HIGH-SPEED WATER JET WITH A SINGLE LONGITUDINAL SLOT IN EACH RIGID BOUNDARY. Bernard Weinflash. October 1957. 27p. diagrs., photos. (NACA RM L57I06)

THE MEASUREMENT OF PRESSURE ALTITUDE ON AIRCRAFT. William Gracey. October 1957. 25p. diagrs., tabs. (NACA TN 4127)

MEASUREMENT OF STATIC PRESSURE ON AIRCRAFT. William Gracey. November 1957. ii, 71p. diagrs. (NACA TN 4184)

EFFECTS OF STING-SUPPORT INTERFERENCE ON THE DRAG OF AN OGIVE-CYLINDER BODY WITH AND WITHOUT A BOATTAIL AT 0.6 TO 1.4 MACH NUMBER. George Lee and James L. Summers. December 1957. 28p. diagrs., photos. (NACA RM A57I09)

EFFECTS OF FIXING BOUNDARY-LAYER TRANSITION FOR AN UNSWEPT-WING MODEL AND AN EVALUATION OF POROUS TUNNEL-WALL INTERFERENCE FOR MACH NUMBERS FROM 0.60 TO 1.40. Louis S. Stivers, Jr., and Garth W. Lippmann. April 1958. 37p. diagrs. (NACA TN 4228)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. May 1958. 45p. diagrs., tabs. (NACA TN 4240. Supersedes RM L53F19)

BOUNDARY-INDUCED DOWNWASH DUE TO LIFT IN A TWO-DIMENSIONAL SLOTTED WIND TUNNEL. S. Katzoff and Raymond L. Barger. June 1958. 31p. diagrs. (NACA TN 4289)

SUMMARY OF METHODS OF MEASURING ANGLE OF ATTACK ON AIRCRAFT. William Gracey. August 1958. 29p. diagrs. (NACA TN 4351)

A COOLED-GAS PYROMETER FOR USE IN HIGH-TEMPERATURE GAS STREAMS. Lloyd N. Krause, Robert C. Johnson, and George E. Glawe. September 1958. 32p. diagrs. (NACA TN 4383)

(9.2.2) AERODYNAMICS

THE EFFECTS OF SCALE AND TEST TECHNIQUE ON THE VALIDITY OF SMALL-SCALE MEASUREMENTS OF THE AERODYNAMIC CHARACTERISTICS OF A WING WITH THE LEADING EDGE SWEPT BACK 63°. L. Stewart Rolls. December 9, 1949. 20p. diagrs., photos. (NACA RM A9J06)

A COMPARISON OF THE AERODYNAMIC CHARACTERISTICS AT TRANSONIC SPEEDS OF FOUR WING-FUSELAGE CONFIGURATIONS AS DETERMINED FROM DIFFERENT TEST TECHNIQUES Charles J. Donlan, Boyd C. Myers, II, and Axel T Mattson. October 4, 1950. 66p diagrs , photos , tabs. (NACA RM L50H02)

AN INVESTIGATION OF SINGLE-DEGREE-OF-FREEDOM SNAKING OSCILLATIONS ON A MODEL OF A HIGH-SPEED RESEARCH AIRPLANE BY THE NACA WING-FLOW METHOD. Harold I. Johnson and Stanley Faber. August 1951. 22p. diagrs., photos., tab. (NACA RM L51E14)

CHARACTERISTICS OF A TRANSONIC TEST SECTION WITH VARIOUS SLOT SHAPES IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ray H. Wright and Virgil S. Ritchie. October 1951. 35p. diagrs., photo. (NACA RM L51H10)

THE AERODYNAMIC CHARACTERISTICS OF A SUPERSONIC AIRCRAFT CONFIGURATION WITH A 40° SWEPTBACK WING THROUGH A MACH NUMBER RANGE FROM 0 TO 2.4 AS OBTAINED FROM VARIOUS SOURCES. M. Leroy Spearman and Ross B. Robinson. April 1952. 50p. diagrs., photo., tab. (NACA RM L52A21)

CALIBRATION OF THE SLOTTED TEST SECTION OF THE LANGLEY 8-FOOT TRANSONIC TUNNEL AND PRELIMINARY EXPERIMENTAL INVESTIGATION OF BOUNDARY-REFLECTED DISTURBANCES. Virgil S. Ritchie and Albin O. Pearson. July 1952. 87p. diagrs., photos. (NACA RM L51K14)

STABILITY OF BODIES OF REVOLUTION HAVING FINENESS RATIOS SMALLER THAN 1.0 AND HAVING ROUNDED FRONTS AND BLUNT BASES. Stanley H. Scher and James S. Bowman, Jr. January 1953. 23p. diagrs., tabs. (NACA RM L52L08)

PHOTOGRAPHIC INVESTIGATION OF AIR-FLOW PATTERNS IN TRANSPARENT ONE-SIXTH SECTOR OF ANNULAR TURBOJET-ENGINE COMBUSTOR WITH AXIAL-SLOT-TYPE AIR ADMISSION. Charles C. Graves and J. Dean Gernon. December 1954. 24p. diagrs., photos. (NACA RM E54I28a)

DESIGN AND EVALUATION OF A TURBOJET EXHAUST SIMULATOR, UTILIZING A SOLID-PROPELLANT ROCKET MOTOR, FOR USE IN FREE-FLIGHT AERODYNAMIC RESEARCH MODELS. Carlos A. deMoraes, William K. Hagginbothom, Jr., and Ralph A. Falanga. December 1954. 25p. diagrs., photos. (NACA RM L54I15)

INVESTIGATION OF THE LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS X-3 CONFIGURATION AT MACH NUMBERS FROM 0.6 TO 1.1 BY MEANS OF A ROCKET-PROPELLED MODEL. Jesse L. Mitchell and Robert F. Peck. February 1955. 37p. diagrs., photo., tabs. (NACA RM L54L20)

LATERAL STABILITY CHARACTERISTICS AT LOW LIFT BETWEEN MACH NUMBERS OF 0.85 AND 1.15 OF A ROCKET-PROPELLED MODEL OF A SUPERSONIC AIRPLANE CONFIGURATION HAVING A TAPERED WING WITH CIRCULAR-ARC SECTIONS AND 40° SWEEPBACK. Charles T. D'Aiutolo and Allen B. Henning. April 1955. 50p. diagrs., photos., tabs. (NACA RM L55A31)

COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Edward A. Fletcher, Robert G. Dorsch, and Melvin Gerstein. June 1955. 72p. diagrs., photos., tabs. (NACA RM E55D07a)

A PRELIMINARY INVESTIGATION OF STATIC-PRESSURE CHANGES ASSOCIATED WITH COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. August 1955. 12p. diagrs., photos. (NACA RM E55F07)

AERODYNAMIC LOADS ON AN EXTERNAL STORE ADJACENT TO A 45° SWEPTBACK WING AT MACH NUMBERS FROM 0.70 TO 1.96, INCLUDING AN EVALUATION OF TECHNIQUES USED. Lawrence D. Guy and William M. Hadaway. November 1955. 109p. diagrs., photo., tab. (NACA RM L55H12)

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A DESCRIPTION OF THE AMES 2- BY 2-FOOT TRANSONIC WIND TUNNEL AND PRELIMINARY EVALUATION OF WALL INTERFERENCE. Joseph M. Spiegel and Leslie F. Lawrence. January 1956. 65p. diagrs., photo. (NACA RM A55I21)

LATERAL STABILITY CHARACTERISTICS BETWEEN MACH NUMBERS OF 0.80 AND 1.57 AND SIMULATION OF COUPLED MOTION AT MACH NUMBER 1.30 OF A ROCKET-PROPELLED MODEL OF AN AIRPLANE CONFIGURATION HAVING THIN HIGHLY TAPERED 45° SWEPTBACK SURFACES. Charles T. D'Aiutolo and Allen B. Henning. April 1956. 41p. diagrs., photos., tabs. (NACA RM L56A17)

EXPERIMENTAL INVESTIGATION OF INTERFERENCE EFFECTS OF LATERAL-SUPPORT STRUTS ON AFTERBODY PRESSURES AT MACH 1.9. John L. Klann and Ronald G. Huff. May 1956. 13p. diagrs., tab. (NACA RM E56C16)

A BRIEF SUMMARY OF EXPERIENCE IN BOOSTING AERODYNAMIC RESEARCH MODELS. Joseph G. Thibodaux, Jr. (Report is basis of talk presented at the thirtieth meeting of Bumblebee Aerodynamics Panel, Buffalo, New York, January 4, 1956.) July 1956. 21p. diagrs., photos. (NACA RM L56E28)

VISUALIZATION OF ROTOR TIP SECONDARY FLOWS WITH BLADE TIP AIR DISCHARGE AND SUCTION IN A LOW-SPEED TURBINE. Milton G. Kofskey and Hubert W. Allen. August 1956. 28p. diagrs., photos. (NACA RM E56E16)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING THICKNESS ON THE STATIC LONGITUDINAL AND LATERAL STABILITY OF UNSWEPT WINGS OF ASPECT RATIO 3 AT HIGH SUBSONIC SPEEDS. William C. Hayes, Jr., and Edward C. Polhamus. August 1956. 43p. diagrs., photos. (NACA RM L56E30a)

EFFECT OF WING HEIGHT AND DIHEDRAL ON THE LATERAL STABILITY CHARACTERISTICS AT LOW LIFT OF A 45° SWEPT-WING AIRPLANE CONFIGURATION AS OBTAINED FROM TIME-VECTOR ANALYSES OF ROCKET-PROPELLED-MODEL FLIGHTS AT MACH NUMBERS FROM 0.7 TO 1.3. Clarence L. Gillis and Rowe Chapman, Jr. September 1956. 70p. diagrs., photos., tabs. (NACA RM L56E17)

FREE-FLIGHT INVESTIGATION OVER A MACH NUMBER RANGE FROM 0.74 TO 1.43 AT LIFT COEFFICIENTS FROM -0.15 TO 0.75 OF AN AIRPLANE-CONFIGURATION MODEL HAVING A 52.5° DELTA WING AND A LOW SWEPT HORIZONTAL TAIL. Alan B. Kehlet. September 1956. 41p. diagrs., photos. (NACA RM L56G09)

WIND-TUNNEL MEASUREMENTS OF WING BUFFETING ON 1/16-SCALE MODEL OF DOUGLAS D-558-II RESEARCH AIRPLANE. William B. Kemp, Jr., and Thomas J. King, Jr. September 1956. 34p. diagrs., photos., tabs. (NACA RM L56G31)

AN EVALUATION OF FOUR EXPERIMENTAL METHODS FOR MEASURING MEAN PROPERTIES OF A SUPERSONIC TURBULENT BOUNDARY LAYER. George J. Nothwang. 1957. ii, 11p. diagrs., photos. (NACA Rept. 1320. Supersedes TN 3721)

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SOME EFFECTS OF HEAT TRANSFER AT MACH NUMBER 2.0 AT STAGNATION TEMPERATURES BETWEEN 2,310° AND 3,500° R ON A MAGNESIUM FIN WITH SEVERAL LEADING-EDGE MODIFICATIONS. William M. Bland, Jr., and Walter E. Bressette. April 1957. 29p. diagrs., photos., tab. (NACA RM L57C14)

EXPLORATORY INVESTIGATION OF AERODYNAMIC EFFECTS OF EXTERNAL COMBUSTION OF ALUMINUM BOROHYDRIDE IN AIRSTREAM ADJACENT TO FLAT PLATE IN MACH 2.46 TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. July 1957. 91p. diagrs., photos., tabs. (NACA RM E57E16)

EFFECT OF FREQUENCY OF SIDESLIPPING MOTION ON THE LATERAL STABILITY DERIVATIVES OF A TYPICAL DELTA-WING AIRPLANE. Jacob H. Lichtenstein and James L. Williams. September 1957. 46p. diagrs., photos., tabs. (NACA RM L57F07)

DEVELOPMENT OF A PISTON-COMPRESSOR TYPE LIGHT-GAS GUN FOR THE LAUNCHING OF FREE-FLIGHT MODELS AT HIGH VELOCITY. A. C. Charters, B. Pat Denardo, and Vernon J. Rossow. November 1957. (i), 95p. diagrs., photos., tabs. (NACA TN 4143. Supersedes RM A55G11)

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EXTREME SPEEDS AND THERMODYNAMIC STATES IN SUPERSONIC FLIGHT. (Extreme Geschwindigkeiten und thermische Zustände beim Überschallflug.) Klaus Oswatitsch. April 1958. 39p. diagrs., tabs. (NACA TM 1434. Translation from Zeitschrift fur Flugwissenschaften, v. 4, no. 3/4, 1956, p. 95-108)

NORMAL COMPONENT OF INDUCED VELOCITY FOR ENTIRE FIELD OF A UNIFORMLY LOADED LIFTING ROTOR WITH HIGHLY SWEPT WAKE AS DETERMINED BY ELECTROMAGNETIC ANALOG. Walter Castles, Jr., Howard L. Durham, Jr., and Jirair Kevorkian, Georgia Institute of Technology. June 1958. 33p. diagrs., photos., tabs. (NACA TN 4238)

EFFECTS OF FIXING TRANSITION ON THE TRANSONIC AERODYNAMIC CHARACTERISTICS OF A WING-BODY CONFIGURATION AT REYNOLDS NUMBERS FROM 2.4 TO 12 MILLION. Lynn W. Hunton. July 1958. 56p. diagrs. (NACA TN 4279)

INFLUENCE OF SOLID-BODY ROTATION ON SCREEN-PRODUCED TURBULENCE. Stephen C. Traugott, Johns Hopkins University. August 1958. 100p. diagrs., photos. (NACA TN 4135)

SLIP-FLOW HEAT TRANSFER FROM CYLINDERS IN SUBSONIC AIRSTREAMS. Lionel V. Baldwin. September 1958. (i), 77p. diagrs., photos., tabs. (NACA TN 4369)

(9.2.3) HYDRODYNAMICS

THE HYDRODYNAMIC PLANING LIFT OF FOUR SURFACES AS MEASURED IN A 200-FPS FREE JET. John R. McGehee, Bernard Weinflash, and Charles A. Pelz. July 1954. 24p. diagrs., photos. (NACA RM L54F01)

INVESTIGATION OF THE INFLUENCE OF THE BOUNDARIES OF A HIGH-SPEED FREE WATER JET ON THE PLANING LIFT OF A FLAT PLATE. John R. McGehee. March 1957. 21p. diagrs., photos. (NACA RM L56K02)

EFFECT OF BOUNDARY SOLIDITY ON PLANING LIFT OBTAINED IN A HIGH-SPEED WATER JET WITH A SINGLE LONGITUDINAL SLOT IN EACH RIGID BOUNDARY. Bernard Weinflash. October 1957. 27p. diagrs., photos. (NACA RM L57I06)

(9.2.4) LOADS AND CONSTRUCTION

EXPERIMENTAL RESULTS FROM A TEST IN ROUGH AIR AT HIGH SUBSONIC SPEEDS OF A TAILLESS ROCKET MODEL HAVING CRUCIFORM TRIANGULAR WINGS, AND A NOTE ON THE CALCULATION OF MEAN SQUARE LOADS OF AIRCRAFT IN CONTINUOUS ROUGH AIR. A. James Vitale and Jesse L. Mitchell. April 1956. 25p. diagrs., photo., tab. (NACA RM L55L28)

A SEMIEMPIRICAL PROCEDURE FOR ESTIMATING WING BUFFET LOADS IN THE TRANSONIC REGION. T. H. Skopinski and Wilber B. Huston. September 1956. 22p. diagrs., tab. (NACA RM L56E01)

WIND-TUNNEL MEASUREMENTS OF WING BUFFETING ON 1/16-SCALE MODEL OF DOUGLAS D-558-II RESEARCH AIRPLANE. William B. Kemp, Jr., and Thomas J. King, Jr. September 1956. 34p. diagrs., photos., tabs. (NACA RM L56G31)

COMPARISON OF SEVERAL METHODS FOR OBTAINING THE TIME RESPONSE OF LINEAR SYSTEMS TO EITHER A UNIT IMPULSE OR ARBITRARY INPUT FROM FREQUENCY-RESPONSE DATA. James J. Donegan and Carl R. Huss. 1957. ii, 13p. diagrs., tabs. (NACA Rept. 1324. Supersedes TN 3701.)

THEORY OF AIRCRAFT STRUCTURAL MODELS SUBJECT TO AERODYNAMIC HEATING AND EXTERNAL LOADS. William J. O'Sullivan, Jr. September 1957. 48p. (NACA TN 4115)

(9.2.5) PROPULSION

COMPONENT AND OVER-ALL PERFORMANCE EVALUATION OF AN AXIAL-FLOW TURBOJET ENGINE OVER A RANGE OF ENGINE-INLET REYNOLDS NUMBERS. Curtis L. Walker, S. C. Huntley, and W. M. Braithwaite. July 1952. 42p. diagrs., tabs. (NACA RM E52B08)

FREE-JET ALTITUDE INVESTIGATION OF A 20-INCH RAM-JET COMBUSTOR WITH A RICH INNER ZONE OF COMBUSTION FOR IMPROVED LOW-TEMPERATURE-RATIO OPERATION. Arthur M. Trout and Carl B. Wentworth. May 1953. 28p. diagrs., photo. (NACA RM E52L26)

PHOTOGRAPHIC INVESTIGATION OF AIR-FLOW PATTERNS IN TRANSPARENT ONE-SIXTH SECTOR OF ANNULAR TURBOJET-ENGINE COMBUSTOR WITH AXIAL-SLOT-TYPE AIR ADMISSION. Charles C. Graves and J. Dean Gernon. December 1954. 24p. diagrs., photos. (NACA RM E54I28a)

LIFT AND DRAG CHARACTERISTICS OF THE DOUGLAS X-3 RESEARCH AIRPLANE OBTAINED DURING DEMONSTRATION FLIGHTS TO A MACH NUMBER OF 1.20. Donald R. Bellman and Edward D. Murphy. December 1954. 23p. diagrs., photos., tab. (NACA RM H54I17)

DESIGN AND EVALUATION OF A TURBOJET EXHAUST SIMULATOR, UTILIZING A SOLID-PROPELLANT ROCKET MOTOR, FOR USE IN FREE-FLIGHT AERODYNAMIC RESEARCH MODELS. Carlos A. deMoraes, William K. Hagginbothom, Jr., and Ralph A. Falanga. December 1954. 25p. diagrs., photos. (NACA RM L54I15)

COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Edward A. Fletcher, Robert G. Dorsch, and Melvin Gerstein. June 1955. 72p. diagrs., photos., tabs. (NACA RM E55D07a)

A PRELIMINARY INVESTIGATION OF STATIC-PRESSURE CHANGES ASSOCIATED WITH COMBUSTION OF ALUMINUM BOROHYDRIDE IN A SUPERSONIC WIND TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. August 1955. 12p. diagrs., photos. (NACA RM E55F07)

USE OF SHADOWGRAPH TECHNIQUE IN THE ANALYSIS OF THE PERFORMANCE OF TWO SUPERSONIC AXIAL-FLOW COMPRESSOR ROTORS OPERATING OVER A MEAN RADIUS RELATIVE INLET MACH NUMBER RANGE OF 0.85 TO 1.7. Theodore J. Goldberg and James R. Sterrett. April 1956. 48p. diagrs., photos. (NACA RM L56A05)

EXPLORATORY INVESTIGATION OF AERODYNAMIC EFFECTS OF EXTERNAL COMBUSTION OF ALUMINUM BOROHYDRIDE IN AIRSTREAM ADJACENT TO FLAT PLATE IN MACH 2.46 TUNNEL. Robert G. Dorsch, John S. Serafini, and Edward A. Fletcher. July 1957. 91p. diagrs., photos., tabs. (NACA RM E57E16)

APPLICATION OF A HIGH-TEMPERATURE STATIC STRAIN GAGE TO THE MEASUREMENT OF THERMAL STRESSES IN A TURBINE STATOR VANE. R. H. Kemp, C. R. Morse, and M. H. Hirschberg. March 1958. 36p. diagrs., photos., tab. (NACA TN 4215)

GRAPHS OF REDUCED VARIABLES FOR COMPUTING HISTORIES OF VAPORIZING FUEL DROPS, AND DROP HISTORIES UNDER PRESSURE. G. L. Borman, M. M. El Wakil, O. A. Uyehara, and P. S. Myers, University of Wisconsin. September 1958. (i), 55p. diagrs., tab. (NACA TN 4338)

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(9.2.6) OPERATING PROBLEMS

AN EXPERIMENTAL INVESTIGATION OF THE TRANSONIC-FLOW-GENERATION AND SHOCK-WAVE-REFLECTION CHARACTERISTICS OF A TWO-DIMENSIONAL WIND TUNNEL WITH 24-PERCENT-OPEN, DEEP, MULTISLOTTED WALLS. Thomas B. Sellers, Don D. Davis, and George M. Stokes. December 1953. 37p. diagrs., photos. (NACA RM L53J28)

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LAG IN PRESSURE SYSTEMS AT EXTREMELY LOW PRESSURES. William T. Davis. September 1958. 16p. diagrs. (NACA TN 4334)

(9.2.7) MATHEMATICS

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TABLES FOR THE NUMERICAL DETERMINATION OF THE FOURIER TRANSFORM OF A FUNCTION OF TIME AND THE INVERSE FOURIER TRANSFORM OF A FUNCTION OF FREQUENCY, WITH SOME APPLICATIONS TO OPERATIONAL CALCULUS METHODS. Carl R. Huss and James J. Donegan. October 1957. 205p. tabs. (NACA TN 4073)

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